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aeromet

MONTHLY PROGRESS REPORT NO. 13
for the period March 1-31, 1977
to
ENVIRONMENTAL PROTECTION AGENCY
REGION VIII

1860 Lincoln St., Suite 900
Denver, CO 80203

Contract No. 68-01-1946

Utah U-a/U-b Tract

aeromet inc.

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by

Aeromet, Inc.
Box FF
Norman, OK 73070

Utah U-a/U-b Tract

1.0 INTRODUCTION

Low level temperature and wind data were collected for March, 1977 at Casper, Wyoming; near the Shell Oil Co. Colorado C-b Tract 25 miles west of Rio Blanco, Colorado; Craig, Colorado; Escalante and Hanksville Utah; Rock Springs, Wyoming; and the U-a/U-b Tract 5 miles south of Bonanza, Utah. The data collection was made using a 30 gm helium filled pilot balloon with a temperature sonde attached, a single theodolite and a TSR-2 receiver/recorder twice a day every other day. The observations were made $\frac{1}{2}$ hour after sunrise and 1400L.

The pilot balloon had an ascent rate of 500 ft/min and it was tracked by a single theodolite for 12 minutes with the azimuth and elevation angles recorded every 30 seconds on a cassette tape recorder. The tape was transcribed to a pilot balloon form after the observation.

The temperature sonde operated at 403 MHz and the signal was received by a ground plane antenna at least 24 ft. AGL which was attached to the Aeromet, Inc. TSR-2 receiver/recorder. The TSR-2 receiver has a built-in Rustrak strip chart recorder and the temperature was recorded within the range from -50°C to $+50^{\circ}\text{C}$. A baseline temperature calibration was performed with each T-Sonde by the adjustment of the recorded temperature to match the thermometer measured temperature next to the transmitting sonde. Once the calibration check was finished the balloon was released with the sonde attached and the temperature was recorded for at least 20 minutes. At the completion of each observation the data were mailed to Aeromet, Inc.

The Monthly Progress Report is divided into seven parts, one corresponding to each of the seven field sites. The collected temperature and wind data are accurate and have not been edited unless otherwise stated in the Pilot Balloon Summary Section. However, the obvious errors sometimes found in the recorded azimuth and elevation angles are corrected without mention. For example, the sequence of azimuth angles . . . 76.6, 75.3, 47.8, 73.8 . . . can be corrected without ambiguity. The more ambiguous errors are brought to the attention of the reader if editing has been performed, otherwise, the data are left as recorded and the filtering is left to the individual user. An example is the wind profile for Hanksville on 06/29/76 at 1300 MST found in the Monthly Progress Report No. 4. The azimuth angles starting 30 seconds after the launch and incremented by the same are as follows . . . 109.0, 110.0, 110.0, 281.0, 280.0, 282.0 . . . , while the corresponding elevation angles are as follows, . . . 60.0, 57.6, 58.7, 58.6, 52.7, 44.3 The wind speed and direction change dramatically over the interval as can be seen in the report since these data were not edited.

2.0 DATA SUMMARY

2.1 Utah U-a/U-b Tract Field Summary

No problems were experienced during the month of March. The observer attempted 93% of the scheduled pilot balloon launches resulting in 90% recovery of the temperature data and 73% recovery of the wind data. Snow and strong winds contributed to the 3% loss in temperature data and the 20% loss in wind data.

2.2 Mixing Layer Height

The average mixing layer height was computed for the morning and afternoon based on the morning and 1400L temperature soundings. The balloon release $\frac{1}{2}$ hour after sunrise is near enough to the minimum temperature to assume the correctness of the calculated mixing layer heights. The afternoon balloon release is generally not at the time of maximum heating and the user of the mixing layer height data must be aware that minor changes in the calculated values can be expected. Without equipping the field sites with minimum/maximum thermometers the extrapolation of the afternoon data can not be justified in establishing a data base for statistical analysis. The approximation of the afternoon maximum temperature would be a "calculated guess" for there are: 1) local effects which are to be determined and would be filtered out with extrapolation, 2) mountain effects which alter the lower 1500m (e.g. downslope effects), and 3) meteorological effects which can alter the expected change in the sounding (e.g. advection, moisture, etc.).

It is felt that to better define the mixing layer height that a variety of "heat island" effects should be viewed. The rigorous method would be to define 15 "heat island" effects ranging from 0 to 14°C and let the user decide which would best serve his needs. However, for these analysis 0°, +5° and +10° "heat island" effects are calculated and listed for the morning and afternoon soundings in the table Average Mixing Layer Height.

The symbol N/D means that no mixing layer height was defined and sfc is the abbreviation for surface.

2.3 Stability and Inversion Classification

The temperature and wind data were edited to remove data felt to cause anomalous results in the stability and inversion classification schemes. Only the stations listed prior to the table classifying the inversions were used in the calculations.

3.0 DATA PROCESSING

3.1 Printed and Plotted Output

Wind speeds and directions are computed from the azimuth and elevation angles measured while tracking the balloon with the theodolite. The wind speed and direction are plotted versus height and printed out at 30 second intervals. The printed output includes the AGL and MSL height of the calculated wind value and the orthogonal components of the wind. The wind profile is also punched on computer cards at 30 second intervals.

The temperature data are processed and plotted with the temperature and the lapse rate per 300 meters versus height at 15 second intervals. Tic marks are placed on the temperature plot at significant levels. A solid line to the right side of the plot indicates the data for that layer are interpolated temperature values. The temperature data are also printed out and punched on cards. The asterisk beside a height value indicates a significant level while a "?" indicates interpolated data.

The temperature data are also processed to produce for each site a monthly summary of inversion layers and lapse rates within the inversions and from the inversion base to the surface by means of the Holzworth classification scheme for inversions (Holzworth, G.C., 1974: "Climatological Data on Atmospheric Stability in the United States" Paper presented at the American Meteorological Society Symposium on Atmospheric Diffusion and Air Pollution, September 9-13, 1974. Santa Barbara, California.)

The temperature and wind data are processed together to produce for each site a monthly average bivariate frequency distribution of wind direction versus wind speed represented in the 500m layer adjacent to the ground. The distribution is presented by the six Pasquill stability classes (A-F) and a summary independent of stability. If the $\Delta T/100m$ criterion is met but the wind speed criterion is not met, then the

STABILITY CLASS	ΔT (°C/100m)	WIND SPEED
A	<-1.9	<2
B	-1.9 - -1.7	<5
C	-1.7 - -1.5	<6
D	-1.5 - -0.5	ALL SPEEDS
E	-0.5 - 1.5	<5
F	>1.5	<3

wind data are checked against the criterion for the next stability class, always cascading to the D stability class. Once the wind speed criterion is met the data are classified under the new stability class even though now the lapse rate exceeds the class criterion. For example,

if the $\Delta T/100\text{m}$ value is 1.7 and the wind speed is 7 m/s, the lapse rate criterion is met for the stability class F, however the wind speed criterion is exceeded. The wind speed is greater than the 5 m/s maximum limit for class E but falls within the criterion of class D, which includes all wind speeds. As a result the observational data with a ΔT value of $1.7^\circ\text{C}/100\text{ m}$ and a wind speed value of 7 m/s are classified under stability class D, not class F.

The data are also punched on computer cards in a format compatible with the STAR PROGRAM of the National Climatic Center, NOAA, U.S. Department of Commerce.

The punched temperature and wind data for each observation are categorized into four groups, each separated by a blank card. The first group begins with a header card listing the station name (3A4), the station elevation in meters (I4), the month, date and year (I6), the observation time (I4), the time zone (A3), the balloon ascent rate in feet per minute (I3), the sampling interval in seconds (I2), the temperature error in °C (F5.1), the T-Sonde I.D. number (I5) and the surface wind speed in kts and direction (2F6.1). A surface wind speed of 180.0 KTS indicates missing surface wind data. The series of cards prior to the first blank card include on each card the elapse time in minutes (2X,F5.1), the height of the balloon in meters AGL (4X,F5.0), the height of the balloon in meters MSL (4X,F5.0), the temperature in °C (4X,F6.2), the change in temperature between standard or significant levels (2X,F6.2), the lapse rate per 300m (2X,F6.2), the difference in the lapse rate per 300m and the dry adiabatic lapse rate per 300m (2X,F6.2), the wind speed in m/s if known (4X,F5.1), and the wind direction if known (3X,F5.0). The cards following the first blank card include on each card the elapse time in minutes (2X,F5.1), the height in meters AGL (4X,F5.0), the height in meters MSL (4X,F5.0), the u-component of the wind in m/s (4X,F6.1), the v-component of the wind in m/s (6X,F6.1), the wind speed in m/s (7X,F5.1), the wind direction (6X,F5.0), the elevation angle in degrees (F5.1) and the azimuth angle in degrees (F5.1). The cards after the second blank card include a header card like before and a series of cards with four groups of the following on each card; the height in meters AGL (F6.1), the temperature in °C (F6.2), the lapse rate °C/300m (F6.2) and a blank space (1X). The cards after the third blank card include a header card the same as described earlier, eight cards with the original digitized temperature data and a flag to indicate interpolated data (20(F3.1,I1)), five cards with the elevation angle in degrees (16F5.1), and five cards with the azimuth angle in degrees (16F5.1). The temperature data are in degrees Celsius and have 50°C added to each value. An elevation angle of 180° indicates a missing azimuth and elevation angle value.

MONTH: MARCH YEAR: 1976. CASPER SEC TO 500 METERS

DD-5081

and the punched distribution data for each wind direction under each stability class in agreement with the "star" output. The stability classes are number coded as follows:

STABILITY CLASS	NUMBER CODE
A	1
B	2
C	3
D	4
E	5
F	6
Independent of Stability	7

The station I.D. numbers are as follows:

STATION	I.D. NUMBER
Casper, Wyoming	1
Colorado C-b Tract	2
Craig, Colorado	3
Escalante, Utah	4
Hanksville, Utah	5
Rock Springs, Wyoming	6
Utah U-a/U-b Tract	7

The month and season number codes are as follows:

MONTH	1-12
SEASON	13 = DJF
	14 = MAM
	15 = JJA
	16 = SON
ANNUAL	17

PILOT BALLOON SUMMARY
Utah U-a/U-b Tract
March, 1977

March 2	MORN	No data received.
	1350	No wind observations due to snow.
March 4	0648	No wind observations due to snow.
	1353	No wind observations due to snow.
March 6	0650	
	1351	Balloon was lost from sight after 11 minutes.
March 8	0639	
	1351	
March 10	0636	No wind observations due to snow.
	1356	No wind observations due to snow. Temperature values were interpolated over the interval from 22 1/2 to 24 1/2 minutes.
March 12	MORN	No morning observations due to vehicle problems.
	1350	
March 14	0632	Temperature values were interpolated over the interval from 5 1/2 to 11 1/4 minutes.
	1350	
March 16	0631	Balloon was lost after 4 minutes. Temperature values were interpolated over the interval from 13 1/4 to 16 minutes.
	1355	Temperature values were interpolated over the interval from 1 1/4 to 11 3/4 minutes.

PILOT BALLOON SUMMARY
Utah U-a/U-b Tract
March, 1977

March 18	0628	Temperature values were interpolated over the interval from 9 1/4 to 12 1/4 minutes.
	1350	Balloon was lost in the clouds after 4 1/2 minutes.
March 20	0622	Balloon was lost in the clouds after 8 1/2 minutes.
	1350	Unusually high wind speed values result from large changes in low elevation angles.
March 22	0615	
	1351	Temperature values were interpolated over the interval from 6 3/4 to 12 3/4 minutes.
March 24	0618	Temperature values were interpolated over the interval from 9 3/4 to 12 1/4 minutes.
	1351	Balloon was lost in the clouds after 10 1/2 minutes.
March 26	0613	Temperature values were interpolated over the interval from 2 3/4 to 5 minutes.
		Balloon was lost in the clouds after 11 minutes.
	1350	
March 28	0607	No wind observations due to snow and blowing dust. Balloon burst after 2 1/4 minutes.
	1350	
March 30	0608	
	1352	Temperature values were interpolated over the interval from 8 3/4 to 12 1/4 minutes.

AVERAGE MIXING LAYER HEIGHT

Utah U-a/U-b Tract

March, 1977

HEIGHT IN METERS

DATE	MORNING			AFTERNOON		
	0°	+5°	+10°	0°	+5°	+10°
2				1150m	1650m	N/D
4	50m	2000m	N/D	100m	1450m	1700m
6	sfc	100m	250m	300m	750m	1900m
8	sfc	75m	150m	200m	1150m	3000m
10	200m	1750m	3150m	sfc	2400m	3000m
12				100m	1000m	1600m
14	sfc	300m	1400m	2050m	3400m	N/D
16	sfc	100m	250m	250m	1750m	2800m
18	2100m	3800m	N/D	100m	3000m	4100m
20	sfc	2950m	N/D	750m	1100m	1650m
22	sfc	100m	300m	1000m	2100m	3700m
24	sfc	2100m	3800m	2900m	3650m	N/D
26	50m	650m	N/D	1500m	1700m	3050m
28	300m			1000m	N/D	N/D
30	sfc	150m	1400m	1300m	3150m	3650m

CLOUD COVER AND SIGNIFICANT WEATHER

Utah U-a/U-b Tract

March, 1977

<u>DATE</u>	<u>MORNING</u>	<u>AFTERNOON</u>
2		broken, snow
4	overcast, snow	overcast, snow
6	clear	clear
8	scattered	broken
10	overcast, heavy snow	overcast, snow
12		broken
14	scattered	broken
16	scattered	scattered
18	broken	broken
20	overcast	broken
22	clear	clear
24	scattered	broken
26	overcast	scattered
28	overcast, snow, blowing dust	overcast
30	scattered	scattered

UTAH UAUB

FLEV 1585 METERS

SOUNDING ID 4032

DATE 03/02/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

412.

451.

0.26

-1.41

UTAH UAUB

FLEV 1585 METERS

SOUNDING ID 4034

DATE 03/04/77 TIME 06:48MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

38.

76.

0.76

-0.26

UTAH UAUB

FLEV 1585 METERS

SOUNDING ID 4036

DATE 03/04/77 TIME 13:53MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

457.

495.

0.0

-0.59

UTAH UAUB

FLEV 1585 METERS

SOUNDING ID 4038

DATE 03/06/77 TIME 06:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

0.

343.

2.59

0.0

UTAH UAUB

FLEV 1585 METERS

SOUNDING ID 4033

DATE 03/06/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

317.

660.

0.30

-0.92

UTAH UAUB

FLEV 1585 METERS

SOUNDING ID 4035

DATE 03/08/77 TIME 06:39MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

0.

457.

1.93

0.0

UTAH UAUB

FLEV 1585 METERS

SOUNDING ID 4037

DATE 03/08/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

122.

160.

0.24

-1.57

UTAH DATA

ELEV 1585 METERS

SOUNDING ID 4039

DATE 03/10/77 TIME 04:36MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

194.

270.

0.13

-0.96

UTAH DATA*****
ELEV 1585 METERS*****
SOUNDING ID 4286

DATE 03/10/77 TIME 13:56MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

0.

38.

0.0

0.0

UTAH DATA*****
ELEV 1585 METERS*****
SOUNDING ID 4291

DATE 03/12/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

724.

2000.

0.16

-0.75

UTAH DATA*****
ELEV 1585 METERS*****
SOUNDING ID 4293

DATE 03/14/77 TIME 04:32MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

0.

152.

1.92

0.0

UTAH DATA*****
ELEV 1585 METERS*****
SOUNDING ID 4295

DATE 03/14/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

243.

296.

0.36

-1.33

UTAH DATA*****
ELEV 1585 METERS*****
SOUNDING ID 4285

DATE 03/16/77 TIME 06:31MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

0.

724.

1.45

0.0

UTAH DATA*****
ELEV 1585 METERS*****
SOUNDING ID 4287

DATE 03/16/77 TIME 13:55MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

THERE ARE NO INVERSION BASES WITHIN 0M OF THE SEC

LAYER BASE
METERS AGLLAYER TOP
METERS AGLDT/DZ
(DEG C)/100M

0.	100.	-1.09
100.	250.	-0.79
250.	500.	-0.74
500.	750.	-0.74
750.	1000.	-0.75
1000.	1500.	-0.63

 UTAH UAUB FLEV 1585 METERS SOUNDING ID 4294
 DATE 03/18/77 TIME 06:28MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.
 INV BASE INV TOP INV DT/DZ DT/DZ BELOW INV
 METERS AGL METERS AGI (DEG C)/100M (DEG C)/100M
 1080. 1137. 0.0 -1.03

 UTAH UAUB FLEV 1585 METERS SOUNDING ID 4284
 DATE 03/18/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.
 INV BASE INV TOP INV DT/DZ DT/DZ BELOW INV
 METERS AGL METERS AGI (DEG C)/100M (DEG C)/100M
 76. 152. 0.63 -1.00

 UTAH UAUB FLEV 1585 METERS SOUNDING ID 4280
 DATE 03/20/77 TIME 06:22MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.
 INV BASE INV TOP INV DT/DZ DT/DZ BELOW INV
 METERS AGL METERS AGI (DEG C)/100M (DEG C)/100M
 0. 76. 0.0 0.0

 UTAH UAUB FLEV 1585 METERS SOUNDING ID 4278
 DATE 03/20/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.
 INV BASE INV TOP INV DT/DZ DT/DZ BELOW INV
 METERS AGL METERS AGI (DEG C)/100M (DEG C)/100M
 76. 166. 0.0 -4.20

 UTAH UAUB FLEV 1585 METERS SOUNDING ID 4289
 DATE 03/22/77 TIME 06:15MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.
 INV BASE INV TOP INV DT/DZ DT/DZ BELOW INV
 METERS AGL METERS AGI (DEG C)/100M (DEG C)/100M
 0. 305. 2.38 0.0

 UTAH UAUB FLEV 1585 METERS SOUNDING ID 4288
 DATE 03/22/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.
 INV BASE INV TOP INV DT/DZ DT/DZ BELOW INV
 METERS AGL METERS AGI (DEG C)/100M (DEG C)/100M
 615. 692. 0.49 -1.27

 UTAH UAUB FLEV 1585 METERS SOUNDING ID 4281
 DATE 03/24/77 TIME 06:18MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.
 INV BASE INV TOP INV DT/DZ DT/DZ BELOW INV
 METERS AGL METERS AGI (DEG C)/100M (DEG C)/100M
 0. 38. 0.0 0.0

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4279

DATE 03/24/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

124.

162.

0.0

-1.54

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4290

DATE 03/26/77 TIME 06:13MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

76.

114.

0.0

-0.37

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4283

DATE 03/26/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

155.

202.

0.41

-2.16

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4277

DATE 03/28/77 TIME 06:07MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

THERE ARE INSUFFICIENT DATA WITHIN 2000M OF THE SFC

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4275

DATE 03/28/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

138.

176.

0.0

-1.79

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4273

DATE 03/30/77 TIME 06:08MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

0.

229.

2.02

0.0

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4292

DATE 03/30/77 TIME 13:52MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

404.

480.

0.37

-1.19

MONTH: MARCH YEAR: 1977. UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE A STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 6 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH: MARCH YEAR: 1977. UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE B STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 6 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH: MARCH YEAR: 1977. UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE C STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 6 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH: MARCH YEAR: 1977. UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.07
NNE	0.07	0.0	0.0	0.0	0.0	0.0	1.0	0.07
NENE	0.07	0.0	0.0	0.0	0.0	0.0	2.0	0.07
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.07	0.0	0.0	10.0	0.07
SSE	0.0	0.0	0.0	0.07	0.0	0.0	0.0	0.0
SSW	0.07	0.0	0.0	0.07	0.0	0.0	6.0	0.14
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.14	0.0	0.0	0.0	0.0	0.14
W	0.0	0.07	0.07	0.07	0.0	0.0	7.0	0.17
WNW	0.14	0.07	0.07	0.07	0.0	0.0	4.0	0.36
NW	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.07
NNW	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
AVG SPEED	2.2	4.2	7.1	10.7	0.0	0.0		0.0
TOTAL	0.36	0.14	0.29	0.21	0.0	0.0		1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE D STABILITY CLASS IS 0.64

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 6 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH: MARCH YEAR: 1977. UTAH UAUR SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NENE	0.20	0.0	0.0	0.0	0.0	0.0	0.4	0.20
E	0.20	0.0	0.0	0.0	0.0	0.0	1.2	0.20
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.40	0.0	0.0	0.0	0.0	0.0	0.9	0.40
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.20	0.0	0.0	0.0	0.0	0.0	0.5	0.20
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	1.8	0.0	0.0	0.0	0.0	0.0		0.0
TOTAL	1.00	0.0	0.0	0.0	0.0	0.0		1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE E STABILITY CLASS IS 0.23

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 6 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH: MARCH YEAR: 1977. UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NEE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.33	0.0	0.0	0.0	0.0	0.0	0.2	0.33
SSW	0.33	0.0	0.0	0.0	0.0	0.0	0.5	0.33
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	1.00	0.0	0.0	0.0	0.0	0.0	0.0	1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE F STABILITY CLASS IS 0.14

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 6 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH: MARCH YEAR: 1977. UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.05	0.0	0.0	0.0	0.0	0.0	0.5	0.05
NNE	0.05	0.0	0.0	0.0	0.0	0.0	1.4	0.05
NNE	0.09	0.0	0.0	0.0	0.0	0.0	1.7	0.09
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.05	0.0	0.0	0.05	0.0	0.0	0.0	0.09
SSE	0.05	0.0	0.0	0.05	0.0	0.0	1.5	0.05
SSW	0.18	0.0	0.0	0.05	0.0	0.0	1.4	0.23
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.09	0.0	0.0	0.0	0.0	0.09
WSW	0.0	0.05	0.05	0.0	0.0	0.0	0.0	0.05
WSW	0.0	0.05	0.05	0.0	0.0	0.0	0.0	0.05
WNW	0.14	0.0	0.05	0.05	0.0	0.0	0.2	0.27
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	1.8	4.2	7.1	10.7	0.0	0.0		0.0
TOTAL	0.59	0.09	0.18	0.14	0.0	0.0		1.00

NORMALIZED FREQUENCY DISTRIBUTION INDEPENDENT OF STABILITY

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 6 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4032
 DATE 03/02/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		0.83		0.0		2.6	225.
0.7	150	1735	-1.99	-2.82	-4.76	-1.83	M	M
1.3	300	1885	-3.90	-1.91	-3.63	-0.71	M	M
1.8	415	2000	-4.88	-0.97	-2.30	0.63	M	M
2.3	500	2085	-5.16	-0.28	-1.54	1.39	M	M
5.0	915	2500	-9.07	-3.91	-3.10	-0.18	M	M
8.2	1415	3000	-10.86	-1.79	-0.58	2.34	M	M
14.8	2415	4000	-14.94	-4.08	-1.18	1.75		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4032
 DATE 03/02/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	1.8	1.8	2.6	225.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4034
 DATE 03/04/77 TIME 06:48MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-3.99		0.0		1.5	135.
1.0	150	1735	-3.99	0.0	-1.53	1.40	M	M
2.0	300	1885	-5.15	-1.16	-3.07	-0.14	M	M
2.7	415	2000	-6.42	-1.27	-2.70	0.23	M	M
3.2	500	2085	-7.11	-0.69	-2.70	0.23	M	M
5.7	915	2500	-10.66	-3.55	-1.36	1.56	M	M
9.0	1415	3000	-14.04	-3.38	-1.18	1.75	M	M
15.1	2415	4000	-22.19	-8.15	-3.59	-0.67		
20.0	3415	5000	-32.11	-9.92	-4.25	-1.33		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4034
 DATE 03/04/77 TIME 06:48MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-1.1	1.1	1.5	135.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4036
 DATE 03/04/77 TIME 13:53MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		1.79		0.0		2.1	45.
1.0	150	1735	0.84	-0.95	-1.51	1.42	M	M
2.0	300	1885	0.07	-0.77	-1.13	1.79	M	M
2.7	415	2000.	-0.60	-0.67	-1.70	1.22	M	M
3.3	500	2085	-0.99	-0.38	-0.38	2.55	M	M
6.0	915	2500.	-3.78	-2.80	-4.79	-1.66	M	M
8.0	*1413	2998	-8.89		0.0	2.93		
8.0	1415	3000.	-7.93	-4.14	2.90	5.83	M	M
9.8	*1680	3265	-4.97		0.96	3.89		
14.6	2415	4000.	-8.59	-0.66	-1.74	1.19		
21.1	3415	5000.	-15.74	-7.15	-1.97	0.96		
27.2	4415	6000.	-23.92	-8.18	-4.40	-1.47		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4036
 DATE 03/04/77 TIME 13:53MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-1.5	-1.5	2.1	45.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4038
 DATE 03/06/77 TIME 06:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-9.87		0.0		1.5	90.
1.0	150	1735	-15.46	4.41	6.32	9.25	1.0	55.
2.0	300	1885	-11.10	4.36	3.80	6.73	2.1	174.
3.0	* 342	1927	-10.99		0.95	3.88		
4.0	415.	2000.	-11.18	0.01	0.0	2.43	2.5	190.
5.0	500	2085.	-11.09	-0.01	0.19	3.12	3.9	203.
6.0	915.	2500.	-11.38	-2.51	-0.96	1.97	4.0	214.
7.0	* 1409	2994.	-11.53		2.68	5.61		
8.0	1415.	3000.	-11.45	-1.00	6.31	9.24	7.3	261.
9.0	* 1752	3337	-11.09		10.38	2.55		
10.0	2415.	4000.	-11.38	0.71	0.0	2.93		
11.0	3415.	5000.	-11.74	-7.85	-2.92	0.00		
12.0	4415.	6000.	-15.74	-4.00	0.0	2.93		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4038
 DATE 03/06/77 TIME 06:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-1.5	-0.0	1.5	90.
1.0	76.	1661.	-1.1	-1.4	1.8	142.
2.0	152.	1737.	-0.7	-0.6	0.9	52.
3.0	229.	1814.	-0.4	-0.6	0.7	35.
4.0	305.	1890.	0.1	NNNN	2.2	184.
5.0	381.	1966.	0.3	NNNN	2.3	187.
6.0	457.	2042.	0.0	NNNN	2.7	193.
7.0	533.	2118.	0.5	4.0	4.9	211.
8.0	610.	2195.	0.8	4.3	5.7	222.
9.0	686.	2271.	0.8	4.0	5.5	224.
10.0	762.	2347.	0.5	3.6	4.4	219.
11.0	838.	2423.	0.5	3.6	4.4	215.
12.0	914.	2499.	0.0	3.6	4.0	214.
13.0	991.	2576.	1.0	3.6	4.1	207.
14.0	1067.	2652.	2.3	3.3	4.7	209.
15.0	1143.	2728.	2.2	NNNN	5.3	233.
16.0	1219.	2804.	5.0	NNNN	5.6	243.
17.0	1295.	2880.	5.3	NNNN	5.8	246.
18.0	1372.	2957.	6.4	NNNN	6.7	251.
19.0	1448.	3033.	7.8	NNNN	7.8	268.
20.0	1524.	3109.	6.6	1.0	6.7	279.
21.0	1600.	3185.	6.0	1.1	6.3	290.
22.0	1676.	3261.	6.6	NNNN	7.0	288.
23.0	1753.	3338.	5.8	1.0	7.0	304.
24.0	1829.	3414.	5.8	6.0	8.3	316.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4033
 DATE 03/06/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		6.52		0.0		1.5	315.
0.9	150.	1735.	4.82	-1.70	-4.64	-1.72	2.7	33.
1.6	300.	1885.	3.61	-1.21	-0.19	2.74	1.6	51.
2.4	415.	2000.	3.69	0.08	0.93	3.86	0.9	41.
3.2	500.	2085.	4.16	0.47	1.86	4.79	1.4	117.
4.0	915.	2500.	2.27	-1.51	-4.88	-1.95	5.2	191.
5.5	1415.	3000.	-0.22	-2.88	0.0	2.93	7.9	247.
6.8	2415.	4000.	-4.97	-4.74	-1.34	1.58		
8.1	3415.	5000.	-11.35	-6.39	-1.95	0.98		
9.5	4415.	6000.	-19.36	-8.01	-3.97	-1.05		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4033
 DATE 03/06/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	1.1	-1.1	1.5	315.
0.5	76.	1661.	-1.2	-1.2	1.7	45.
1.0	177.	1762.	-1.5	-2.7	3.1	29.
1.5	279.	1864.	-1.3	-1.0	1.7	53.
2.0	355.	1940.	-1.0	-0.9	1.4	47.
2.5	431.	2016.	-0.5	-0.6	0.8	40.
3.0	508.	2093.	-1.2	0.9	1.5	126.
3.5	584.	2169.	-2.4	3.5	4.2	145.
4.0	660.	2245.	-2.2	4.4	4.9	154.
4.5	736.	2321.	-1.9	5.7	6.0	161.
5.0	812.	2397.	-0.9	5.1	5.2	170.
5.5	889.	2474.	0.9	4.9	5.0	190.
6.0	981.	2566.	1.3	5.7	5.9	193.
6.5	1101.	2686.	1.9	6.0	6.2	198.
7.0	1187.	2772.	3.1	4.7	5.6	214.
7.5	1263.	2848.	4.1	4.3	5.9	224.
8.0	1339.	2924.	6.1	3.9	7.3	238.
8.5	1415.	3000.	7.3	3.1	7.9	247.
9.0	1492.	3077.	10.0	1.3	10.0	262.
9.5	1568.	3153.	12.0	0.1	12.0	270.
10.0	1644.	3229.	10.6	-0.4	10.6	272.
10.5	1720.	3305.	9.0	0.7	9.0	265.
11.0	1796.	3381.	7.8	3.4	8.5	247.

UTAH UAUB

FLEV 1585 METERS

SOUNDING ID 4035

DATE 03/08/77

TIME 06:39MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-4.77		0.0		1.8	90.
1.0	150	1735	-3.47	8.24	7.89	10.82	1.4	58.
1.8	* 266	1851	3.98		-0.93	1.99		
2.0	300	1885	3.70	0.23	-0.37	2.55	2.9	214.
2.7	415.	2000.	4.07	-0.00	0.0	2.93	3.9	185.
3.3	500	2085.	3.69	0.0	-0.93	2.00	5.7	181.
6.0	915.	2500.	1.31	-2.36	-1.88	1.05	14.2	211.
9.3	1415.	3000.	-0.22	-1.55	-0.95	1.98	15.7	226.
15.8	2415.	4000.	-7.70	-7.48	-2.32	0.61		
22.0	3415.	5000.	-15.73	-8.04	-2.96	-0.03		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4035

DATE 03/08/77

TIME 06:39MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-1.8	-0.0	1.8	90.
0.5	76.	1661.	-1.3	1.1	1.7	131.
1.0	152.	1737.	-1.2	-0.8	1.4	55.
1.5	229.	1814.	1.7	1.1	2.1	237.
2.0	305.	1890.	1.6	2.5	2.9	213.
2.5	381.	1966.	0.8	3.3	3.4	194.
3.0	457.	2042.	-0.5	4.6	4.6	173.
3.5	533.	2118.	0.9	6.5	6.6	187.
4.0	610.	2195.	1.7	9.4	9.6	190.
4.5	686.	2271.	2.0	10.4	10.5	191.
5.0	762.	2347.	3.6	11.6	12.1	197.
5.5	838.	2423.	5.3	12.0	13.1	204.
6.0	914.	2499.	7.3	12.2	14.2	211.
6.5	991.	2576.	8.7	12.1	14.9	216.
7.0	1067.	2652.	10.0	12.3	15.9	219.
7.5	1143.	2728.	10.7	12.0	16.1	222.
8.0	1219.	2804.	11.1	12.0	16.3	223.
8.5	1295.	2880.	11.2	11.5	16.1	224.
9.0	1372.	2957.	11.0	10.4	15.2	227.
9.5	1448.	3033.	11.4	11.3	16.0	225.
10.0	1524.	3109.	12.8	11.6	17.3	228.
10.5	1600.	3185.	12.3	11.3	16.7	227.
11.0	1676.	3261.	12.3	10.3	16.0	230.
11.5	1753.	3338.	12.8	10.7	16.7	230.
12.0	1832.	3417.	12.3	9.9	15.8	231.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4037
 DATE 03/08/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		14.10		0.0		3.6	270.
0.9	150.	1735.	12.27	-1.83	-1.26	1.67	4.6	287.
1.9	300.	1885.	12.00	-0.27	-2.72	0.21	4.5	306.
2.7	415.	2000.	11.17	-0.84	-0.91	2.02	4.0	290.
3.2	500.	2085.	10.72	-0.45	-3.64	-0.71	5.0	286.
5.9	915.	2500.	8.30	-2.41	0.18	3.11	12.5	285.
9.2	1415.	3000.	7.46	-1.31	0.0	2.93	13.4	264.
15.3	2415.	4000.	0.06	-6.93	-2.08	0.85		
20.8	3415.	5000.	-7.21	-7.28	-0.97	1.96		
27.0	4415.	6000.	-11.65	-4.44	-3.13	-0.20		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4037
 DATE 03/08/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	3.6	0.0	3.6	270.
0.5	76.	1661.	2.9	-0.4	2.9	278.
1.5	160.	1745.	4.6	-1.5	4.8	288.
1.5	236.	1821.	4.4	-2.5	5.1	299.
2.5	312.	1897.	3.5	-2.6	4.4	307.
3.5	389.	1974.	3.2	-1.3	3.5	293.
3.5	465.	2050.	4.9	-1.2	5.0	284.
3.5	541.	2126.	4.6	-1.5	4.9	288.
4.5	625.	2210.	5.4	-2.3	5.9	293.
4.5	702.	2287.	5.6	-1.4	5.8	285.
5.5	778.	2363.	6.8	-1.4	7.0	282.
5.5	854.	2439.	8.6	-2.1	8.9	284.
6.0	930.	2515.	13.0	-3.4	13.4	285.
6.5	1006.	2591.	13.9	-3.1	14.2	282.
7.5	1083.	2668.	13.8	-2.6	14.1	281.
7.5	1159.	2744.	13.9	-1.1	13.9	275.
8.0	1235.	2820.	15.1	-0.0	15.1	270.
8.5	1311.	2896.	14.2	0.5	14.2	268.
9.5	1387.	2972.	13.4	1.1	13.4	265.
9.5	1464.	3049.	13.2	1.8	13.3	262.
10.0	1540.	3125.	12.6	2.2	12.8	260.
10.5	1629.	3214.	13.3	2.3	13.5	260.
11.0	1709.	3294.	11.1	2.7	11.5	256.
11.5	1785.	3370.	10.8	3.5	11.3	252.
12.0	1864.	3449.	11.1	4.0	11.8	250.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4039
 DATE 03/10/77 TIME 06:36MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-4.28		0.0		5.7	270.
1.0	150	1735	-5.72	-1.44	-2.50	0.43	M	M
1.9	300	1885	-6.61	-0.89	-1.35	1.58	M	M
2.7	415	2000.	-6.63	-0.02	-1.93	1.00	M	M
3.3	500	2085	-8.17	-1.54	-3.10	-0.17	M	M
5.4	915	2500.	-11.75	-3.58	-3.32	-0.40	M	M
8.4	1415	3000.	-15.33	-3.58	-2.55	0.37	M	M
14.9	2415	4000.	-20.06	-4.73	-4.18	-1.25		
20.4	3415	5000.	-27.79	-7.72	-4.02	-1.10		
26.0	4415	6000.	-36.34	-8.55	-2.04	0.89		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4039
 DATE 03/10/77 TIME 06:36MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	5.7	0.0	5.7	270.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4286
 DATE 03/10/77 TIME 13:56MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-0.13		0.0		8.8	360.
1.0	150	1735	-0.98	-0.86	-1.70	1.22	M	M
2.0	300	1885	-1.96	-0.97	-3.23	-0.30	M	M
2.6	415	2000	-3.43	-1.48	-4.01	-1.09	M	M
2.9	500	2085	-4.84	-1.41	-3.44	-0.51	M	M
5.0	915	2500	-8.09	-3.25	-3.48	-0.55	M	M
7.1	1415	3000	-11.06	-2.98	0.39	-0.32	M	M
13.6	2415	4000	-18.75	-7.69	-0.40	2.53		
20.2	3415	5000	-20.98	-2.22	-1.00	1.93		
26.8	4415	6000	-22.70	-1.72	1.60	4.53		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4286
 DATE 03/10/77 TIME 13:56MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	0.0	-8.8	8.8	360.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4291
 DATE 03/12/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		8.32		0.0		3.1	90.
1.0	150.	1735.	8.30	-1.02	-2.57	0.36	1.9	95.
2.0	300.	1885.	7.18	-1.12	-2.03	0.90	2.0	97.
2.7	415.	2000.	5.96	-0.85	-2.22	0.71	2.9	62.
3.3	500.	2085.	5.41	-0.93	-2.04	0.89	3.4	66.
6.0	915.	2500.	4.17	-1.54	-1.49	0.42	4.1	152.
9.3	1415.	3000.	3.12	-0.74	-0.37	2.55	10.7	187.
9.5	*1447	3032	3.12		-0.37	2.55		
14.0	*2133	3718	7.55		1.11	4.03		
15.8	2415.	4000.	7.09	3.96	-2.03	0.90		
22.4	3415.	5000.	1.79	-5.29	-2.44	0.49		
28.3	4415.	6000.	-6.72	-8.51	-3.47	-0.54		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4291
 DATE 03/12/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	3.1	-0.0	3.1	90.
0.5	76.	1661.	-2.0	0.5	2.1	104.
1.0	152.	1737.	-1.9	0.1	1.9	94.
1.5	229.	1814.	-1.6	0.3	1.7	102.
2.0	305.	1890.	-2.0	0.2	2.0	97.
2.5	381.	1966.	-2.4	0.6	2.5	76.
3.0	457.	2042.	-2.5	0.5	3.5	46.
3.5	533.	2118.	-3.3	0.4	3.3	83.
4.0	610.	2195.	-2.5	0.5	3.6	45.
4.5	686.	2271.	-0.5	3.1	3.1	10.
5.0	762.	2347.	-0.1	1.4	1.4	4.
5.5	838.	2423.	-2.0	2.0	2.8	134.
6.0	914.	2499.	-1.9	3.6	4.1	152.
6.5	991.	2576.	-1.7	5.7	6.0	164.
7.0	1067.	2652.	-2.1	7.7	8.0	165.
7.5	1143.	2728.	-2.3	9.7	10.0	167.
8.0	1219.	2804.	-2.4	11.0	11.2	168.
8.5	1295.	2880.	-2.0	12.1	12.3	171.
9.0	1372.	2957.	-0.5	11.6	11.6	178.
9.5	1448.	3033.	2.4	9.8	10.1	194.
10.0	1524.	3109.	4.7	7.7	9.0	212.
10.5	1600.	3185.	5.0	4.4	6.6	229.
11.0	1676.	3261.	6.7	2.6	7.2	248.
11.5	1753.	3338.	6.6	2.8	7.2	247.
12.0	1829.	3414.	5.4	1.2	5.5	258.

UTAH UAIB

ELEV 1585 METERS

SOUNDING ID 4293

DATE 03/14/77 TIME 06:32MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-6.92		0.0		1.5	135.
1.0	150	1735	-3.99	2.93	0.58	3.50	1.6	171.
1.0	* 152	1737	-3.99		0.58	3.50		
2.0	300	1885	-4.77	-0.77	-0.19	2.74	2.2	72.
2.7	415.	2000.	-4.67	-0.00	-0.38	2.54	3.5	37.
3.3	500.	2085.	-5.06	-0.29	-1.34	1.58	2.7	28.
6.0	915.	?2500.	-7.80	-2.75	-1.55	1.38	1.5	339.
9.3	1415.	?3000.	-10.56	-2.76	-1.56	1.37	3.0	307.
15.8	2415.	4000.	-15.53	-4.97	-3.15	-0.22		
21.8	3415.	5000.	-23.71	-8.18	-2.00	0.93		
28.1	4415.	6000.	-27.59	-3.88	-0.81	2.12		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4293

DATE 03/14/77 TIME 06:32MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-1.1	1.1	1.5	135.
0.5	76.	1661.	-0.7	2.9	3.0	167.
1.0	152.	1737.	-0.3	1.6	1.6	171.
1.5	229.	1814.	-0.2	0.3	0.4	151.
2.0	305.	1890.	-2.1	-0.9	2.3	67.
2.5	381.	1966.	-2.1	-3.1	3.8	34.
3.0	457.	2042.	-2.1	-2.4	3.2	40.
3.5	533.	2118.	-0.8	-2.2	2.3	19.
4.0	610.	2195.	-0.5	-2.0	2.1	15.
4.5	686.	2271.	-0.5	-1.3	1.4	22.
5.0	763.	2348.	0.1	-1.5	1.5	356.
5.5	839.	2424.	0.1	-1.3	1.3	354.
6.0	915.	2500.	0.6	-1.4	1.5	339.
6.5	992.	2577.	1.3	-0.8	1.7	299.
7.0	1068.	2653.	1.6	-1.1	1.9	306.
7.5	1144.	2729.	1.9	-0.8	2.1	293.
8.0	1220.	2805.	0.1	-0.7	0.7	350.
8.5	1296.	2881.	1.0	-0.9	1.3	311.
9.0	1373.	2958.	2.1	-2.0	2.9	314.
9.5	1449.	3034.	2.7	-1.6	3.1	301.
10.0	1525.	3110.	3.2	-1.9	3.8	301.
10.5	1601.	3186.	4.1	-2.0	4.6	296.
11.0	1677.	3262.	4.3	-1.6	4.6	291.
11.5	1754.	3339.	4.1	-1.2	4.3	287.
12.0	1830.	3415.	4.2	-1.2	4.4	286.

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4295

DATE 03/14/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MTN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		3.69		0.0		6.2	270.
0.8	150.	1735.	1.65	-2.04	-3.95	-1.02	4.5	269.
1.5	300.	1885.	0.13	-1.52	-3.02	-0.10	4.6	267.
2.2	415.	2000.	-0.90	-0.83	-3.60	-0.68	3.8	264.
2.7	500.	2085.	-1.66	-0.96	-4.56	-1.64	3.9	268.
4.3	915.	2500.	-6.04	-4.37	-4.04	-1.11	5.3	263.
6.7	1415.	3000.	-12.13	-4.81	-4.48	-1.56	4.2	274.
12.5	2415.	4000.	-17.95	-7.11	-1.98	0.95		
18.7	3415.	5000.	-24.63	-6.68	-1.80	1.12		
23.7	4415.	6000.	-33.24	-8.61	-1.42	1.51		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4295

DATE 03/14/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MTN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	6.2	0.0	6.2	270.
0.5	76.	1661.	3.3	0.1	3.3	268.
1.0	193.	1778.	5.2	0.1	5.2	269.
1.5	296.	1881.	4.6	0.2	4.7	267.
2.0	377.	1962.	3.8	0.6	3.8	261.
2.5	459.	2044.	3.8	0.2	3.8	267.
3.0	550.	2135.	4.0	0.2	4.0	268.
3.5	676.	2261.	5.3	0.1	5.3	268.
4.0	831.	2416.	6.0	0.4	6.0	266.
4.5	953.	2538.	4.9	0.7	5.0	262.
5.0	1049.	2634.	4.6	-0.5	4.7	276.
5.5	1157.	2742.	5.8	-0.1	5.8	271.
6.0	1272.	2857.	5.0	-0.7	5.0	278.
6.5	1373.	2958.	3.8	-0.4	3.8	276.
7.0	1499.	3084.	5.0	0.1	5.1	269.
7.5	1601.	3186.	5.9	0.0	5.9	270.
8.0	1681.	3266.	5.2	0.3	5.2	274.
8.5	1786.	3371.	4.2	0.4	4.2	275.
9.0	1869.	3454.	3.1	0.4	3.2	278.
9.5	1945.	3530.	4.4	0.3	4.4	274.
10.0	2021.	3606.	4.8	0.2	4.8	272.
10.5	2100.	3685.	6.5	2.4	6.9	250.
11.0	2176.	3761.	7.4	4.0	8.9	241.
11.5	2267.	3852.	8.9	4.3	9.9	244.
12.0	2343.	3928.	10.5	5.6	11.9	242.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4285
 DATE 03/16/77 TIME 04:31MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MTN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-8.98		0.0		2.1	135.
1.0	150	1735	-3.12	5.86	6.12	9.05	1.1	132.
2.0	300	1885	-1.47	1.65	3.79	6.72	1.2	223.
2.7	415.	2000.	0.07	1.35	1.51	4.44	1.4	123.
3.3	500	2085	0.44	0.57	1.51	4.44	1.4	188.
4.8	* 723	2308	1.50		-0.19	2.74		
6.0	915.	2500.	0.74	0.30	-0.94	1.98	M	M
9.3	1415.	3000.	-0.88	-1.62	-1.33	1.60	M	M
15.8	2415.	4000.	-7.01	-6.13	-2.51	0.42		
22.0	3415.	5000.	-13.54	-6.53	-1.18	1.75		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4285
 DATE 03/16/77 TIME 04:31MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MTN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-1.5	1.5	2.1	135.
0.5	76.	1661.	-1.3	2.0	2.4	147.
1.0	152.	1737.	-0.8	0.7	1.1	132.
1.5	229.	1814.	0.2	0.9	0.9	195.
2.0	305.	1890.	0.9	0.9	1.3	225.
2.5	381.	1966.	-0.9	0.3	1.0	110.
3.0	457.	2042.	-1.3	1.4	1.9	139.
3.5	533.	2118.	0.8	0.8	1.1	226.
4.0	610.	2195.	0.7	3.9	3.9	190.

UTAH UA08

FLFV 1585 METERS

SOUNDING ID 4287

DATE 03/16/77 TIME 12:55MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		10.62		0.0		4.6	270.
1.0	150.	1735.	9.05	-1.57	-2.38	0.55	1.3	295.
2.0	? 300.	1885.	7.93	-1.12	-2.21	0.72	3.0	293.
2.7	415.	? 2000.	7.09	-0.84	-2.21	0.71	4.4	294.
3.3	? 500.	2085.	6.26	-0.83	-2.22	0.71	4.3	289.
6.0	915.	? 2500.	3.41	-2.85	-2.24	0.69	5.8	194.
9.3	1415.	? 3000.	-0.12	-3.53	-1.51	1.42	12.7	184.
15.8	2415.	4000.	-5.35	-5.23	-0.77	2.16		
22.4	3415.	5000.	-7.90	-2.55	-2.71	0.22		
28.6	4415.	6000.	-14.63	-6.73	-5.11	-2.18		

UTAH UA08

ELEV 1585 METERS

SOUNDING ID 4287

DATE 03/16/77 TIME 12:55MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	4.6	0.0	4.6	270.
0.5	76.	1661.	2.0	-0.1	2.0	272.
1.0	154.	1739.	1.2	-0.6	1.3	296.
1.5	230.	1815.	2.0	-0.4	2.0	282.
2.0	306.	1891.	2.9	-1.3	3.1	294.
2.5	382.	1967.	3.8	-1.7	4.2	294.
3.0	458.	2043.	4.2	-1.9	4.6	294.
3.5	535.	2120.	4.0	-1.0	4.1	285.
4.0	611.	2196.	1.8	0.0	1.8	270.
4.5	687.	2272.	0.8	2.1	2.2	202.
5.0	763.	2348.	0.2	4.4	4.4	183.
5.5	839.	2424.	0.5	5.5	5.5	186.
6.0	916.	2501.	1.4	5.6	5.8	194.
6.5	992.	2577.	2.2	7.4	7.7	196.
7.0	1068.	2653.	2.6	9.4	9.7	195.
7.5	1144.	2729.	2.4	11.2	11.4	192.
8.0	1220.	2805.	2.2	12.0	12.2	190.
8.5	1297.	2882.	1.1	13.4	13.5	185.
9.0	1373.	2958.	1.1	13.2	13.2	185.
9.5	1449.	3034.	0.7	12.3	12.3	184.
10.0	1525.	3110.	0.8	12.8	12.8	183.
10.5	1601.	3186.	1.4	12.9	12.9	186.
11.0	1678.	3263.	0.6	12.5	12.5	183.
11.5	1754.	3339.	1.3	12.7	12.7	186.
12.0	1830.	3415.	2.0	13.6	13.7	188.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4294
 DATE 03/18/77 TIME 06:28MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.0	SFC		-1.86		0.0		7.7	225.
0.5	150	1735	-3.45	-1.59	-4.78	-1.85	5.9	244.
1.0	300	1885	-5.15	-1.70	-5.95	-3.02	6.8	231.
1.5	450	2000.	-6.53	-1.33	-5.39	-2.47	9.9	240.
2.0	500	2085	-7.28	-0.80	-4.45	-1.52	12.0	244.
2.5	915.	2500.	-11.36	-3.68	-4.10	-1.17	11.5	248.
3.0	1415.	3000.	-15.74	-4.78	-2.76	0.17	9.6	248.
13.3	2415.	4000.	-25.54	-9.80	-3.61	-0.68		
19.2	3415.	5000.	-31.90	-6.36	-0.20	2.73		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4294
 DATE 03/18/77 TIME 06:28MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	5.5	5.5	7.7	225.
0.5	76.	1661.	5.8	2.0	6.2	251.
1.0	171.	1756.	5.1	2.7	5.8	242.
1.5	304.	1889.	5.3	4.3	6.9	231.
2.0	453.	2038.	9.8	4.9	10.9	244.
2.5	581.	2166.	12.5	5.7	13.8	245.
3.0	684.	2260.	11.0	4.3	11.8	249.
3.5	790.	2375.	12.1	5.2	13.2	247.
4.0	886.	2471.	10.4	4.2	11.2	248.
4.5	979.	2564.	11.3	4.5	12.2	248.
5.0	1080.	2665.	11.6	4.5	12.4	249.
5.5	1176.	2761.	11.0	4.2	11.8	249.
6.0	1252.	2837.	9.0	3.5	9.7	249.
6.5	1330.	2915.	8.0	3.2	8.6	248.
7.0	1417.	3002.	9.0	3.6	9.7	248.
7.5	1495.	3080.	8.1	3.5	8.8	247.
8.0	1579.	3164.	8.1	2.6	9.0	252.
8.5	1657.	3242.	8.4	3.2	9.0	249.
9.0	1743.	3328.	9.2	3.6	9.9	249.
9.5	1826.	3411.	11.1	4.7	12.0	249.
10.0	1907.	3492.	12.5	4.9	13.5	247.
10.5	1988.	3573.	13.5	4.4	14.2	252.
11.0	2064.	3649.	15.2	4.5	15.9	254.
11.5	2140.	3725.	14.7	4.1	15.3	255.
12.0	2216.	3801.	15.3	4.6	16.0	253.

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4284

TE 03/18/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		5.49		0.0		10.8	270.
1.0	150	1735	5.20	-0.29	0.0	2.93	15.0	270.
2.0	300	1885	4.45	-0.75	-1.86	1.07	11.7	277.
2.7	415.	2000.	2.65	-1.22	-6.00	-3.07	6.4	289.
3.1	500	2085	1.87	-1.30	-5.46	-2.53	6.5	290.
4.5	915.	2500.	-3.26	-5.13	-8.41	-5.46	M	M
5.7	1415.	3000.	-7.76	-4.50	-9.65	-6.73	M	M
8.0	2415.	4000.	-17.74	-9.99	-4.94	-2.01	M	M
14.3	3415.	5000.	-19.86	-2.12	-1.19	1.74		
19.8	4415.	6000.	-27.78	-7.92	-6.44	-3.51		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4284

ATE 03/18/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	10.8	0.0	10.8	270.
0.5	76.	1661.	13.3	0.2	13.3	269.
1.0	152.	1737.	14.8	-2.2	15.0	279.
1.5	229.	1814.	12.8	-1.6	12.9	277.
2.0	305.	1890.	11.6	-1.4	11.7	277.
2.5	381.	1966.	6.3	-2.0	6.6	287.
3.0	476.	2061.	5.6	-2.2	6.0	291.
3.5	626.	2211.	9.0	-1.8	9.2	281.
4.0	755.	2340.	6.3	1.2	6.4	259.
4.5	907.	2492.	7.1	1.1	7.2	261.

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4280

DATE 03/20/77 TIME 06:22MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		1.79		0.0		7.2	270.
1.0	150	1735	1.50	-0.29	-1.13	1.80	9.1	295.
2.0	300	1885	0.74	-0.76	-1.89	1.04	8.1	304.
2.7	415.	2000.	-0.13	-0.87	-1.32	1.60	7.5	305.
3.3	500	2085.	-0.40	-0.27	-1.89	1.03	7.8	304.
5.9	915.	2500.	-4.28	-3.88	-3.83	-0.90	7.5	292.
8.8	1415.	3000.	-9.07	-4.79	-6.01	-3.08	M	M
14.4	2415.	4000.	-17.64	-8.57	-3.56	-0.63		
20.4	3415.	5000.	-24.83	-7.19	-2.20	0.72		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4280

DATE 03/20/77 TIME 06:22MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	7.2	0.0	7.2	270.
0.5	76.	1661.	6.3	-1.1	6.4	280.
1.0	152.	1737.	8.3	-3.9	9.1	295.
1.5	229.	1814.	8.5	-4.4	9.5	297.
2.0	305.	1890.	6.6	-4.5	8.0	305.
2.5	381.	1966.	6.2	-4.4	7.6	305.
3.0	457.	2042.	6.2	-4.3	7.5	305.
3.5	533.	2118.	6.6	-4.4	8.0	304.
4.0	610.	2195.	6.1	-4.6	7.6	307.
4.5	686.	2271.	6.9	-5.6	8.9	309.
5.0	768.	2353.	8.5	-5.5	10.1	303.
5.5	852.	2437.	6.9	-2.7	7.4	292.
6.0	939.	2524.	6.9	-2.9	7.5	293.
6.5	1029.	2614.	7.7	-4.0	8.7	298.
7.0	1106.	2691.	8.1	-4.4	9.2	299.
7.5	1182.	2767.	8.4	-4.3	9.4	297.
8.0	1258.	2843.	9.3	-4.7	10.5	297.
8.5	1340.	2925.	9.6	-4.5	10.6	295.

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4278

DATE 03/20/77

TIME 13:50MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		7.46		0.0		5.1	315.
0.8	150	1735	4.26	-3.20	-2.24	0.69	5.9	319.
1.6	300	1885	3.47	-0.79	-0.94	1.99	6.6	320.
2.3	415.	2000.	2.65	-0.81	-3.00	-0.07	6.3	311.
2.8	500	2085	1.52	-1.14	-3.38	-0.45	6.6	317.
5.5	915.	2500.	0.83	-0.69	1.13	4.06	13.4	286.
8.8	1415.	3000.	1.41	0.57	-0.75	2.17	20.3	300.
15.1	2415.	4000.	-2.92	-4.33	-1.91	1.02		
21.5	3415.	5000.	-8.59	-5.86	-3.10	-0.17		
27.7	4415.	6000.	-11.16	-2.57	-5.46	-2.53		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4278

DATE 03/20/77

TIME 13:50MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	3.6	-3.6	5.1	315.
0.5	76.	1661.	2.4	-2.5	5.4	316.
1.0	215.	1800.	5.0	-6.3	8.1	321.
1.5	291.	1876.	4.0	-5.3	6.6	323.
2.0	368.	1953.	5.2	-3.2	6.1	301.
2.5	449.	2034.	4.4	-4.7	6.4	317.
3.0	530.	2115.	4.5	-4.8	6.6	317.
3.5	611.	2196.	6.9	-2.7	7.4	291.
4.0	687.	2272.	8.5	-0.4	6.5	272.
4.5	763.	2348.	9.3	1.7	9.5	260.
5.0	839.	2424.	9.3	-0.6	9.4	274.
5.5	915.	2500.	12.9	-3.7	13.4	286.
6.0	992.	2577.	19.6	-7.6	21.1	291.
6.5	1068.	2653.	25.6	-8.7	27.0	289.
7.0	1144.	2729.	33.7	-10.3	35.2	287.
7.5	1220.	2805.	40.9	-12.9	42.9	288.
8.0	1296.	2881.	24.0	-8.6	25.5	290.
8.5	1373.	2958.	16.8	-9.3	21.0	296.
9.0	1449.	3034.	16.5	-10.9	19.8	303.
9.5	1525.	3110.	15.0	-8.7	17.3	300.
10.0	1601.	3186.	10.2	-6.7	17.5	292.
10.5	1677.	3262.	16.7	-1.6	16.7	275.
11.0	1754.	3339.	11.1	-2.4	11.4	282.
11.5	1830.	3415.	7.2	-2.1	7.5	287.
12.0	1906.	3491.	9.5	-5.0	10.8	298.

UTAH UAUB

FLEV 1585 METERS

SOUNDING ID 4289

DATE 03/22/77 TIME 06:15MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-5.45		0.0		2.1	135.
1.0	150	1735	-0.14	5.31	6.99	9.92	3.5	159.
1.5	* 228	1813	1.79		3.77	6.70		
2.0	300	1885	1.79	1.93	-0.19	2.74	3.6	194.
2.7	415.	2000.	1.31	-0.10	-1.32	1.61	3.6	215.
3.3	500.	2085.	1.02	-0.66	-0.94	1.99	3.0	218.
6.0	915.	2500.	-1.86	-2.11	-2.85	0.08	3.5	248.
9.3	1415.	3000.	-1.86	-0.77	-0.57	2.36	7.0	261.
15.6	2415.	4000.	-10.26	-8.40	-2.33	0.59		
22.1	3415.	5000.	-17.54	-7.28	-2.57	0.36		
28.3	4415.	6000.	-26.05	-8.51	-2.41	0.52		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4289

DATE 03/22/77 TIME 06:15MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-1.5	1.5	2.1	135.
0.5	76.	1661.	-1.0	0.4	1.1	113.
1.0	152.	1737.	-1.2	3.4	3.6	160.
1.5	229.	1814.	-10.3	3.9	3.9	176.
2.0	305.	1890.	0.9	3.4	3.6	195.
2.5	381.	1966.	2.4	3.3	4.0	216.
3.0	457.	2042.	1.7	2.5	3.1	214.
3.5	533.	2118.	1.9	2.2	2.9	221.
4.0	610.	2195.	2.6	2.0	3.3	233.
4.5	686.	2271.	3.0	1.5	3.3	244.
5.0	762.	2347.	2.8	1.5	3.2	243.
5.5	838.	2423.	2.9	1.3	3.1	246.
6.0	914.	2499.	3.3	1.4	3.5	247.
6.5	991.	2576.	4.7	0.9	4.8	259.
7.0	1070.	2655.	5.7	0.9	5.8	261.
7.5	1146.	2731.	6.0	1.5	6.2	256.
8.0	1222.	2807.	6.6	2.7	7.1	248.
8.5	1298.	2883.	7.8	1.7	8.2	251.
9.0	1375.	2960.	6.9	1.5	7.1	258.
9.5	1451.	3036.	6.9	0.8	6.9	264.
10.0	1527.	3112.	6.6	0.5	6.6	266.
10.5	1603.	3188.	6.3	0.0	6.3	270.
11.0	1686.	3271.	6.5	-1.0	6.6	279.
11.5	1762.	3347.	7.1	-1.4	7.3	282.
12.0	1838.	3423.	7.9	-1.0	7.9	277.

UTAH UAUB

FLEV 1585 METERS

SOUNDING ID 4288

DATE 03/22/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MTN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		15.01		0.0		1.0	270.
0.7	150	1735	11.64	-3.37	-6.55	-3.62	1.8	297.
1.1	300	1885	10.15	-1.49	-6.95	-4.02	2.3	309.
1.5	415	2000.	8.77	-1.38	-6.95	-4.02	2.3	303.
1.8	500	2085	8.40	-0.37	-2.57	0.36	2.3	279.
4.2	915	2500.	5.87	-2.16	-0.37	2.56	1.8	162.
7.5	1415.	23000.	3.50	-2.74	-2.24	0.69	1.9	198.
14.0	2415.	4000.	-2.05	-5.56	-2.09	0.83		
20.5	3415.	5000.	-8.49	-6.44	-2.33	0.60		
26.8	4415.	6000.	-15.44	-6.95	-0.79	2.14		

UTAH UAUB

FLEV 1585 METERS

SOUNDING ID 4288

DATE 03/22/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MTN	HEIGHT M (AGL)	HEIGHT M (MSL)	H-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	1.0	0.0	1.0	270.
0.5	76.	1661.	1.3	-0.4	1.4	286.
1.0	255.	1840.	1.7	-1.5	2.3	311.
1.5	417.	2002.	1.9	-1.2	2.3	303.
2.0	577.	2162.	2.3	0.6	2.4	256.
2.5	653.	2238.	0.3	1.3	1.3	193.
3.0	730.	2315.	0.4	1.3	1.4	196.
3.5	806.	2391.	-0.0	0.0	0.0	180.
4.0	882.	2467.	-0.3	1.4	1.4	168.
4.5	958.	2543.	1.0	2.0	2.3	153.
5.0	1034.	2619.	0.8	2.4	2.5	162.
5.5	1111.	2696.	1.0	2.8	2.9	160.
6.0	1187.	2772.	1.4	2.9	3.2	155.
6.5	1263.	2848.	1.2	3.2	3.5	159.
7.0	1339.	2924.	0.5	3.5	3.5	171.
7.5	1415.	3000.	0.6	1.8	1.9	198.
8.0	1492.	3077.	1.8	-0.1	1.8	273.
8.5	1568.	3153.	1.6	2.0	2.6	219.
9.0	1644.	3229.	1.7	1.4	1.9	221.
9.5	1720.	3305.	1.7	0.9	2.0	243.
10.0	1796.	3381.	2.0	1.0	2.2	244.
10.5	1873.	3458.	3.2	1.1	3.4	251.
11.0	1949.	3534.	3.5	1.2	3.7	252.
11.5	2025.	3610.	4.0	1.5	4.3	249.
12.0	2101.	3686.	4.3	1.4	4.5	253.

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4281

DATE 03/24/77

TIME 06:18MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		8.07		0.0		7.7	180.
1.0	150	1735	8.03	-0.65	-1.65	1.27	8.4	189.
2.0	300	1885	7.27	-0.75	-1.66	1.27	13.5	199.
2.7	415.	2000.	5.96	-1.31	-3.15	-0.22	14.0	204.
3.3	500	2085	5.14	-0.82	-2.60	0.33	14.3	206.
5.7	915.	2500.	1.02	-4.09	-4.52	-1.59	14.3	212.
8.7	1415.	3000.	-3.02	-4.04	-3.05	-0.12	19.1	220.
15.1	2415.	4000.	-9.58	-6.56	-2.13	0.79		
21.0	3415.	5000.	-16.04	-6.46	-4.34	-1.41		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4281

DATE 03/24/77

TIME 06:18MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-0.0	7.7	7.7	180.
0.5	75.	1660.	1.3	5.4	5.6	195.
1.0	152.	1737.	1.2	8.4	8.5	188.
1.5	229.	1814.	3.0	11.6	12.0	195.
2.0	305.	1890.	4.4	12.8	13.6	199.
2.5	381.	1966.	5.5	13.6	14.7	202.
3.0	457.	2042.	5.7	11.8	13.1	206.
3.5	535.	2120.	6.1	12.1	13.5	207.
4.0	611.	2196.	5.8	10.9	12.3	208.
4.5	690.	2275.	6.1	11.3	12.9	208.
5.0	794.	2370.	7.9	15.1	17.1	208.
5.5	875.	2400.	7.2	11.7	13.8	212.
6.0	961.	2546.	8.0	12.5	14.8	213.
6.5	1062.	2647.	9.8	14.4	17.4	214.
7.0	1138.	2723.	9.3	10.6	14.1	221.
7.5	1214.	2790.	9.5	10.7	14.3	222.
8.0	1290.	2875.	11.0	12.2	16.5	222.
8.5	1360.	2951.	11.1	12.6	16.9	221.
9.0	1460.	3051.	13.4	16.6	21.3	219.
9.5	1542.	3127.	11.4	13.8	16.3	221.
10.0	1618.	3203.	12.6	14.1	18.9	222.
10.5	1695.	3280.	11.3	12.2	16.6	223.
11.0	1771.	3356.	12.2	11.9	17.1	226.
11.5	1847.	3432.	12.2	12.3	17.3	225.
12.0	1923.	3508.	12.2	12.7	17.6	224.

UTAH UAU8

FLEV 1585 METERS

SOUNDING ID 4279

DATE 03/24/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		14.83		0.0		10.3	135.
0.9	150	1735	12.92	-1.91	-0.90	2.03	9.9	167.
1.9	300	1885	12.01	-0.91	-3.07	-0.15	10.1	166.
2.6	415	2000	9.97	-0.83	-3.46	-0.53	11.2	166.
3.1	500	2085	10.24	-0.94	-3.48	-0.55	12.6	170.
4.8	915	2500	5.11	-5.07	-5.38	-2.45	11.4	186.
6.4	1415	3000	0.55	-4.61	-4.71	-1.78	11.2	195.
9.6	2415	4000	-10.56	-10.21	-6.81	-3.80	12.0	195.
11.0	*2861	4446	-13.84		-1.96	0.97		
13.0	*3165	4750	-11.85		-0.98	1.95		
14.0	3415	5000	-14.84	-5.18	-5.70	-2.77		
20.3	4415	6000	-18.15	-3.31	0.79	3.72		

UTAH UAU8

FLEV 1585 METERS

SOUNDING ID 4279

DATE 03/24/77 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585	7.3	7.3	10.3	135.
0.5	76.	1661	1.0	4.8	4.9	168.
1.0	162.	1747	2.5	10.4	10.7	167.
1.5	238.	1823	2.8	11.0	11.4	166.
2.0	315.	1900	2.4	9.5	9.8	166.
2.5	392.	1977	2.7	10.2	10.6	165.
3.0	480.	2065	2.6	12.5	12.8	168.
3.5	589.	2174	0.6	11.8	11.8	177.
4.0	696.	2281	0.4	9.8	9.8	178.
4.5	834.	2419	0.2	11.4	11.4	181.
5.0	996.	2581	0.0	11.1	11.3	190.
5.5	1145	2730	2.4	11.0	11.2	193.
6.0	1290	2875	3.7	9.7	10.4	201.
6.5	1435	3020	2.7	11.0	11.3	194.
7.0	1562	3147	3.9	9.6	10.3	202.
7.5	1692	3277	3.0	10.3	10.7	196.
8.0	1854	3439	2.9	12.9	13.2	193.
8.5	2026	3611	2.4	13.5	13.7	190.
9.0	2202	3787	2.2	11.5	11.7	191.
9.5	2379	3964	3.1	11.0	11.4	196.
10.0	2556	4141	3.5	13.8	14.3	195.
10.5	2727	4312	5.5	12.9	14.0	203.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4290
 DATE 03/26/77 TIME 06:13MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		1.02		0.0		2.6	315.
1.0	150	1735	0.27	-0.76	-1.13	1.80	1.4	318.
2.0	300	1885	0.25	-0.01	-0.57	2.36	1.0	63.
2.7	415.	?2000.	-0.22	-0.47	-0.38	2.55	0.6	166.
3.3	? 500	2085	-0.32	-0.10	-0.57	2.36	1.7	258.
6.0	915.	2500.	-1.96	-1.33	-3.42	-0.49	5.2	21.
8.9	1415.	3000.	-6.23	-4.59	-1.54	1.39	4.4	35.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4290
 DATE 03/26/77 TIME 06:13MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	1.8	-1.8	2.6	315.
0.5	76.	1661.	1.6	-0.5	1.7	287.
1.0	152.	1737.	0.9	-1.0	1.4	319.
1.5	229.	1814.	0.2	-1.2	1.2	352.
2.0	305.	1890.	-0.7	-0.7	1.0	44.
2.5	381.	1966.	-0.3	-0.3	0.4	51.
3.0	457.	2042.	0.6	-0.5	0.8	309.
3.5	533.	2118.	1.5	1.9	2.4	218.
4.0	610.	2195.	-0.3	2.1	2.2	171.
4.5	686.	2271.	-0.9	1.1	1.4	140.
5.0	762.	2347.	-3.0	1.2	3.2	111.
5.5	838.	2423.	-2.1	-6.8	7.1	17.
6.0	914.	2499.	-1.8	-4.9	5.2	21.
6.5	991.	2576.	-1.0	-4.5	4.6	13.
7.0	1073.	2658.	-0.8	-4.2	4.3	11.
7.5	1167.	2752.	-0.7	-4.4	4.4	10.
8.0	1264.	2849.	-0.9	-4.4	4.4	11.
8.5	1357.	2942.	-2.1	-4.8	5.2	24.
9.0	1433.	3018.	-2.6	-3.3	4.2	36.
9.5	1509.	3094.	-2.3	-2.0	3.1	49.
10.0	1596.	3181.	-2.0	-1.7	2.6	50.
10.5	1673.	3258.	-1.5	-0.8	1.7	63.
11.0	1749.	3334.	-1.3	0.5	1.4	110.

UTAH UAUB

FLEV 1585 METERS

SOUNDING ID 4283

DATE 03/26/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		10.81		0.0		2.1	135.
0.8	150	1735	7.46	-3.34	-2.40	0.53	2.6	187.
1.5	300	1885	5.64	-1.83	-5.57	-2.65	2.2	177.
1.9	415	2000.	4.64	-0.96	-5.57	-2.65	2.9	189.
2.3	500	2085	4.64	-0.03	-5.61	-2.68	2.8	192.
4.0	915	2500.	-0.13	-4.76	-2.45	0.48	1.8	190.
6.7	1415.	3000.	-4.09	-3.87	-0.57	2.35	4.8	236.
7.5	*1530	3115	-4.19		4.01	6.93		
8.5	*1682	3267	-1.18		1.52	4.45		
13.2	2415.	4000.	-5.65	-1.65	-2.30	0.62		
19.5	3415.	5000.	-10.87	-5.22	0.59	3.51		
25.1	4415.	6000.	-17.85	-6.98	0.0	2.93		

UTAH UAUB

FLEV 1585 METERS

SOUNDING ID 4283

DATE 03/26/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-1.5	1.5	2.1	135.
0.5	76.	1661.	0.6	1.7	1.8	201.
1.0	202.	1787.	-0.1	3.2	3.2	178.
1.5	289.	1874.	-0.2	2.1	2.1	175.
2.0	432.	2017.	0.5	3.0	3.0	190.
2.5	565.	2150.	0.6	2.5	2.5	193.
3.0	707.	2292.	0.3	1.3	1.3	192.
3.5	829.	2414.	0.1	2.0	2.0	182.
4.0	925.	2510.	0.3	1.7	1.8	190.
4.5	1001.	2586.	0.0	2.0	2.1	204.
5.0	1087.	2672.	1.0	2.0	2.2	208.
5.5	1215.	2800.	1.7	2.7	3.2	213.
6.0	1302.	2887.	3.0	3.3	4.5	222.
6.5	1378.	2963.	3.9	2.8	4.7	235.
7.0	1454.	3039.	4.2	2.6	4.9	238.
7.5	1530.	3115.	4.7	3.1	5.6	237.
8.0	1607.	3192.	4.9	5.2	7.1	223.
8.5	1683.	3268.	5.9	6.4	8.7	223.
9.0	1759.	3344.	7.4	7.5	10.6	225.
9.5	1835.	3420.	7.6	7.6	10.7	225.
10.0	1911.	3496.	8.0	7.0	10.6	229.
10.5	1988.	3573.	7.4	5.8	9.4	232.
11.0	2064.	3649.	7.1	4.5	8.5	238.
11.5	2140.	3725.	7.0	3.6	7.9	243.
12.0	2216.	3801.	6.9	3.5	7.7	243.

UTAH UA11B

ELEV 1585 METERS

SOUNDING ID 4277

DATE 03/28/77 TIME 06:07MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.8	SFC	1735	-2.05		0.0		12.9	270.
1.6	150	1735	-4.66	-2.61	-3.45	-0.52	M	M
	300	1885	-5.06	-0.40	0.19	3.12	M	M

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4277

DATE 03/28/77 TIME 06:07MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	12.9	0.0	12.9	270.

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4275

DATE 03/28/77

TIME 13:50MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		2.55		0.0		7.2	225.
0.9	150	1735	0.07	-2.49	-1.51	1.42	6.8	249.
1.8	300	1885	-0.21	-0.28	-1.89	1.03	6.7	240.
2.6	415.	2000.	-1.96	-1.32	-4.95	-2.02	6.8	238.
3.0	500	2085	-2.82	-1.29	-6.50	-3.57	6.8	243.
4.4	915.	2500.	-6.72	-3.88	-5.78	-2.86	8.5	262.
6.0	1415.	3000.	-11.36	-4.65	-6.25	-3.32	15.0	268.
9.2	2415.	4000.	-23.92	-11.52	-8.81	-5.88	18.3	267.
11.7	3415.	5000.	-33.14	-9.43	-5.48	-2.55	14.8	270.
16.1	4415.	6000.	-42.86	-10.36	-6.40	-5.47		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 4275

DATE 03/28/77

TIME 13:50MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	5.1	5.1	7.2	225.
0.5	76.	1661.	5.5	1.3	5.6	256.
1.0	176.	1761.	6.7	2.9	7.3	247.
1.5	253.	1838.	4.6	3.0	5.5	237.
2.0	329.	1914.	6.5	3.4	7.4	242.
2.5	405.	1990.	5.7	3.7	6.8	237.
3.0	494.	2079.	6.0	3.0	6.7	243.
3.5	640.	2225.	8.4	4.6	9.6	242.
4.0	800.	2385.	9.0	3.1	9.5	251.
4.5	941.	2526.	8.2	0.9	8.2	264.
5.0	1084.	2609.	9.6	-0.0	9.6	270.
5.5	1251.	2836.	13.0	0.1	13.0	270.
6.0	1416.	3001.	15.0	1.0	15.1	266.
6.5	1565.	3150.	13.0	0.7	13.0	267.
7.0	1697.	3282.	11.7	-0.0	11.7	270.
7.5	1802.	3387.	9.5	-1.0	9.5	276.
8.0	1915.	3500.	10.1	-0.8	10.1	275.
8.5	2060.	3665.	11.9	0.5	11.9	268.
9.0	2334.	3919.	18.3	1.3	18.4	260.
9.5	2588.	4173.	18.3	0.2	18.3	269.
10.0	2805.	4390.	18.3	0.2	18.3	270.
10.5	3004.	4589.	18.1	-0.2	18.1	271.
11.0	3185.	4770.	18.0	0.3	18.0	269.
11.5	3357.	4942.	15.5	0.0	15.5	270.
12.0	3517.	5102.	13.5	0.1	13.5	270.

UTAH UAU18 FLEV 1585 METERS SOUNDING ID 4273
 DATE 03/30/77 TIME 06:08MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DFG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-9.48		0.0		3.6	135.
1.0	150	1735	-5.20	4.28	5.78	8.71	5.0	144.
1.0	* 152	1737	-5.16		5.78	8.71		
2.0	300	1885	-5.16	0.04	-1.34	1.58	3.8	202.
2.7	415.	2000.	-5.94	-0.49	-1.54	1.39	3.5	235.
3.3	500	2085.	-6.33	-0.69	-1.73	1.19	4.1	251.
6.0	915.	2500.	-9.58	-3.24	-2.52	0.40	6.5	277.
9.3	1415.	3000.	-12.95	-3.37	-2.37	1.56	6.1	288.
15.8	2415.	4000.	-20.66	-7.72	-2.99	-0.06		
22.0	3415.	5000.	-29.54	-8.87	-2.42	0.51		
28.5	4415.	6000.	-34.37	-4.84	-0.61	2.32		

UTAH UAU18 ELEV 1585 METERS SOUNDING ID 4273
 DATE 03/30/77 TIME 06:08MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	II-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-2.5	2.5	3.6	135.
0.5	76.	1661.	-2.0	3.0	3.6	146.
1.0	152.	1737.	-3.0	4.1	5.1	144.
1.5	229.	1814.	-0.4	3.6	3.6	173.
2.0	305.	1890.	1.5	3.5	3.8	204.
2.5	381.	1966.	2.3	2.5	3.4	223.
3.0	457.	2042.	3.5	1.3	3.7	250.
3.5	533.	2118.	4.2	1.3	4.4	252.
4.0	610.	2195.	5.7	1.6	5.0	254.
4.5	686.	2271.	6.3	1.5	6.5	256.
5.0	762.	2347.	6.0	1.1	6.1	260.
5.5	839.	2424.	5.7	0.6	5.8	265.
6.0	916.	2501.	6.4	-0.8	6.5	277.
6.5	992.	2577.	7.5	-1.3	7.6	280.
7.0	1068.	2653.	7.5	-0.4	7.5	273.
7.5	1144.	2729.	7.8	-0.6	7.8	275.
8.0	1220.	2805.	8.2	-1.1	7.3	278.
8.5	1297.	2882.	7.7	-1.0	7.7	277.
9.0	1373.	2958.	6.1	-1.5	6.2	284.
9.5	1449.	3034.	5.5	-2.3	5.0	292.
10.0	1525.	3110.	6.2	-2.4	5.7	291.
10.5	1601.	3186.	5.8	-2.0	4.1	289.
11.0	1678.	3263.	4.8	-0.2	4.8	273.
11.5	1754.	3339.	5.1	0.9	5.2	260.
12.0	1830.	3415.	5.5	1.8	5.8	252.

UTAH UA08

ELEV 1585 METERS

SOUNDING ID 4292

DATE 03/30/77 TIME 12:52MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MTN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T 1APSE	WS M/S	WD DFG
0.7	SFC	1735	8.02		0.0		1.5	315.
1.2	150	1885	5.54	-2.48	-5.30	-2.46	1.3	306.
1.8	300	1885	3.81	-1.73	-2.24	0.69	2.2	331.
2.4	415	2000	3.50	-0.33	-1.68	1.24	2.4	147.
4.2	500	2085	3.68	-0.80	-5.25	-2.33	2.8	51.
7.0	915	2500	2.05	-3.87	-4.00	-1.07	4.6	58.
12.8	1415	3000	1.55	-3.88	-4.43	-1.50	5.6	130.
19.2	2415	4000	-12.54	-7.48	-2.74	0.19		
25.2	3415	5000	-17.65	-5.10	1.98	4.91		
	4415	6000	-21.48	-3.83	-4.38	-1.45		

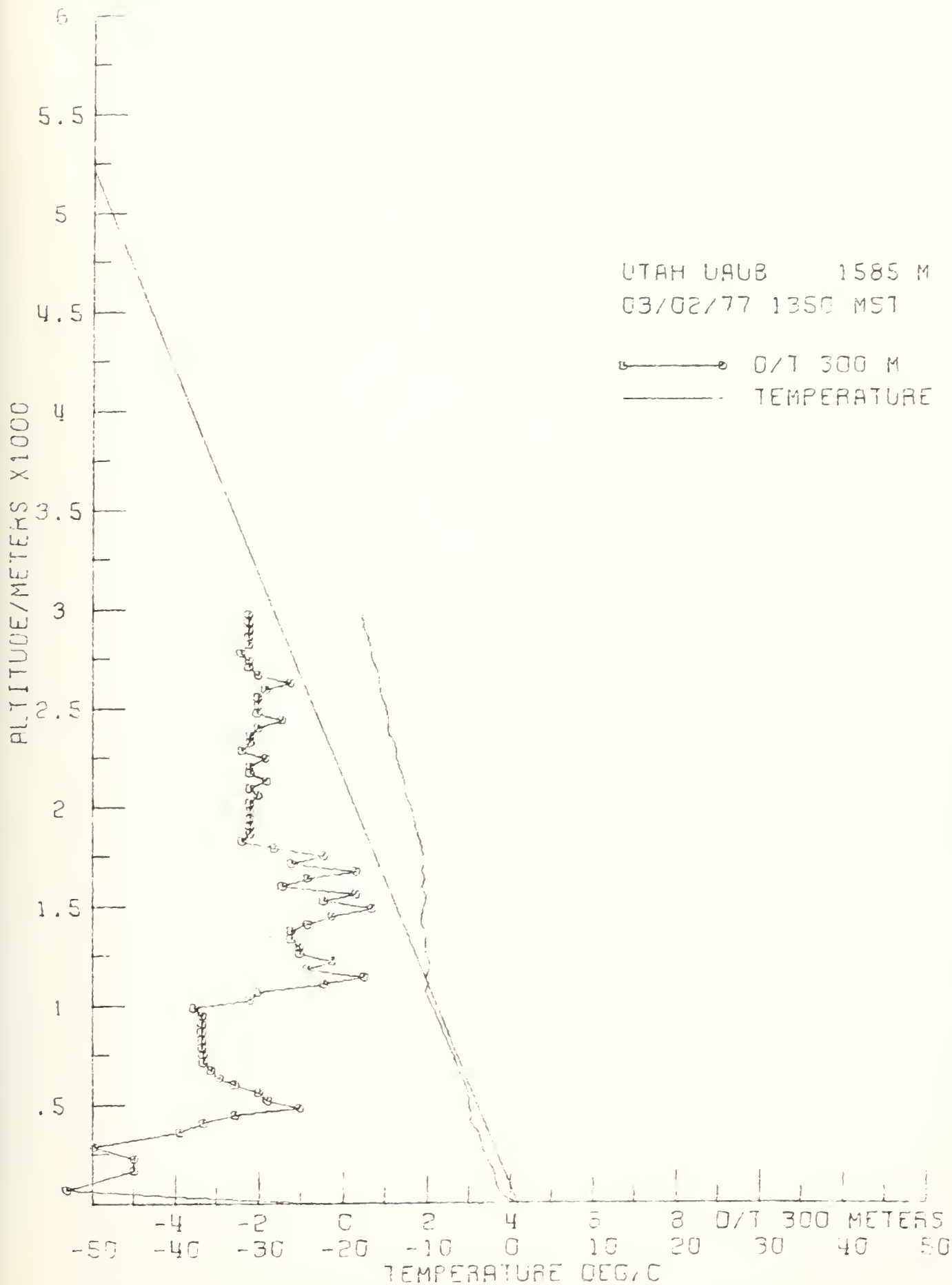
UTAH UA08

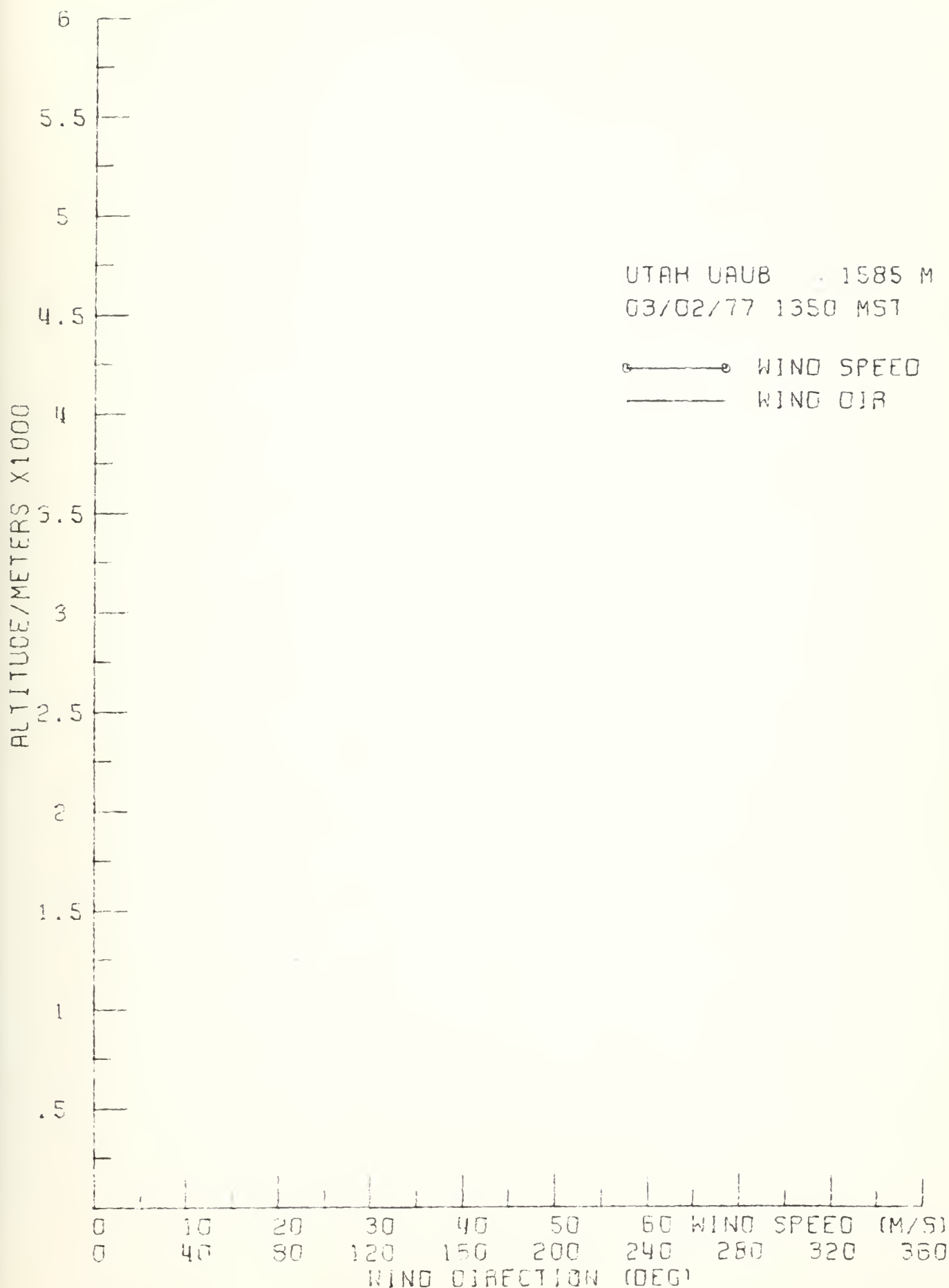
ELEV 1585 METERS

SOUNDING ID 4292

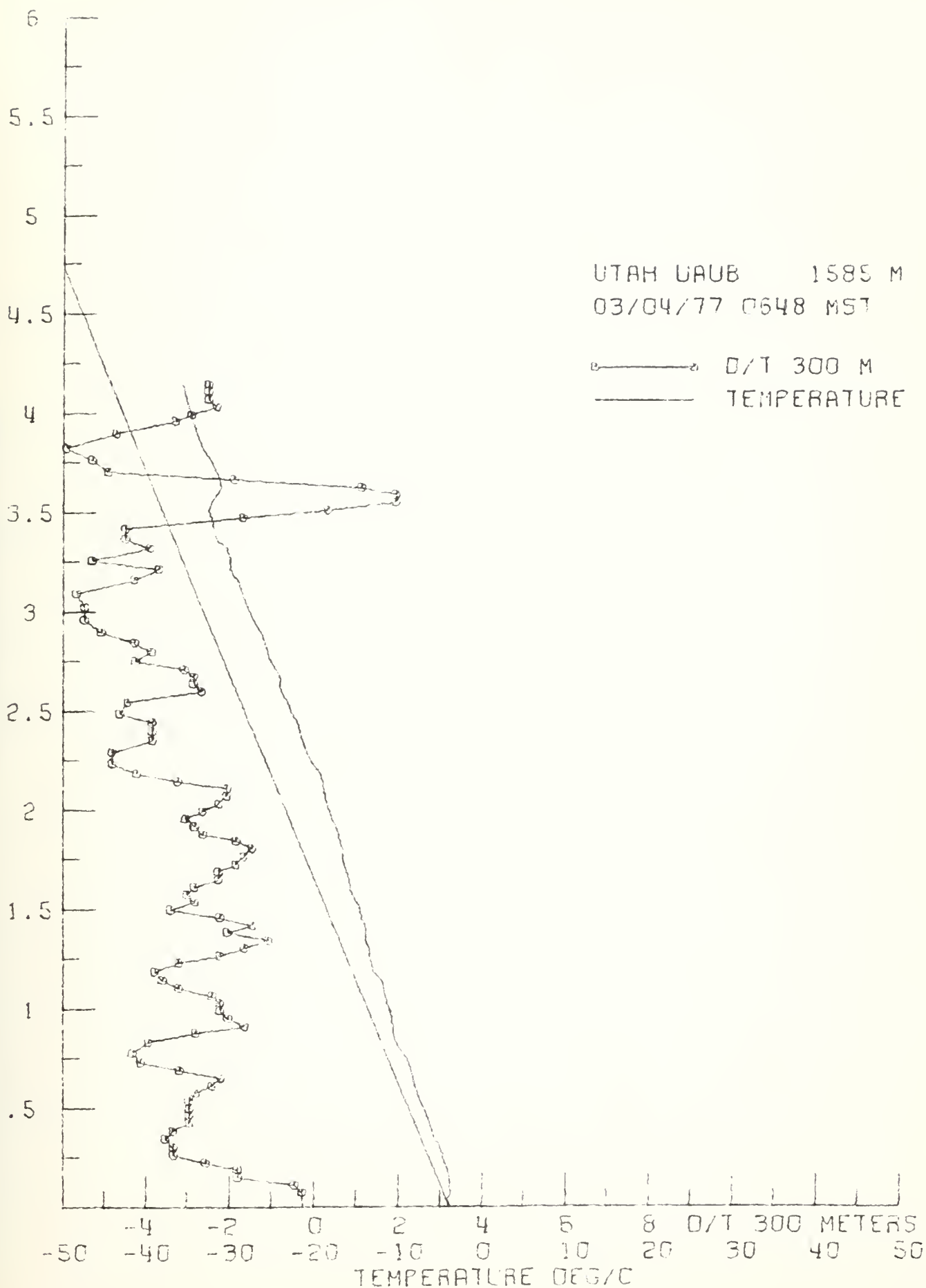
DATE 03/30/77 TIME 12:52MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MTN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	1.1	-1.1	1.5	315.
0.5	76.	1661.	0.3	-0.1	0.3	289.
1.0	241.	1826.	1.3	-2.0	2.4	327.
1.5	366.	1951.	0.8	-1.7	1.9	336.
2.0	442.	2027.	1.8	-2.0	2.7	42.
2.5	521.	2106.	2.3	-1.7	2.9	54.
3.0	666.	2251.	3.2	-2.2	3.9	55.
3.5	788.	2373.	3.3	-2.2	4.0	56.
4.0	877.	2465.	3.0	-2.4	3.8	52.
4.5	986.	2571.	5.5	-2.0	5.9	71.
5.0	1092.	2677.	6.4	-1.1	6.5	80.
5.5	1183.	2768.	7.2	-1.2	7.3	81.
6.0	1260.	2845.	5.2	1.3	5.3	104.
6.5	1337.	2922.	4.8	3.4	5.9	125.
7.0	1413.	2998.	4.8	3.6	5.6	130.
7.5	1489.	3074.	3.9	4.0	5.6	135.
8.0	1614.	3199.	6.0	4.0	7.2	124.
8.5	1751.	3336.	6.5	6.0	8.8	133.
9.0	1836.	3421.	4.1	6.6	7.7	148.
9.5	1912.	3497.	3.9	7.5	8.7	153.
10.0	1988.	3573.	3.9	8.0	8.9	154.
10.5	2064.	3649.	4.2	8.4	9.4	153.
11.0	2141.	3726.	5.0	7.7	8.9	150.
11.5	2217.	3802.	5.0	8.7	10.0	150.
12.0	2293.	3878.	5.4	9.1	10.6	150.





ALTITUDE/METERS X1000



ALTITUDE/METERS X1000

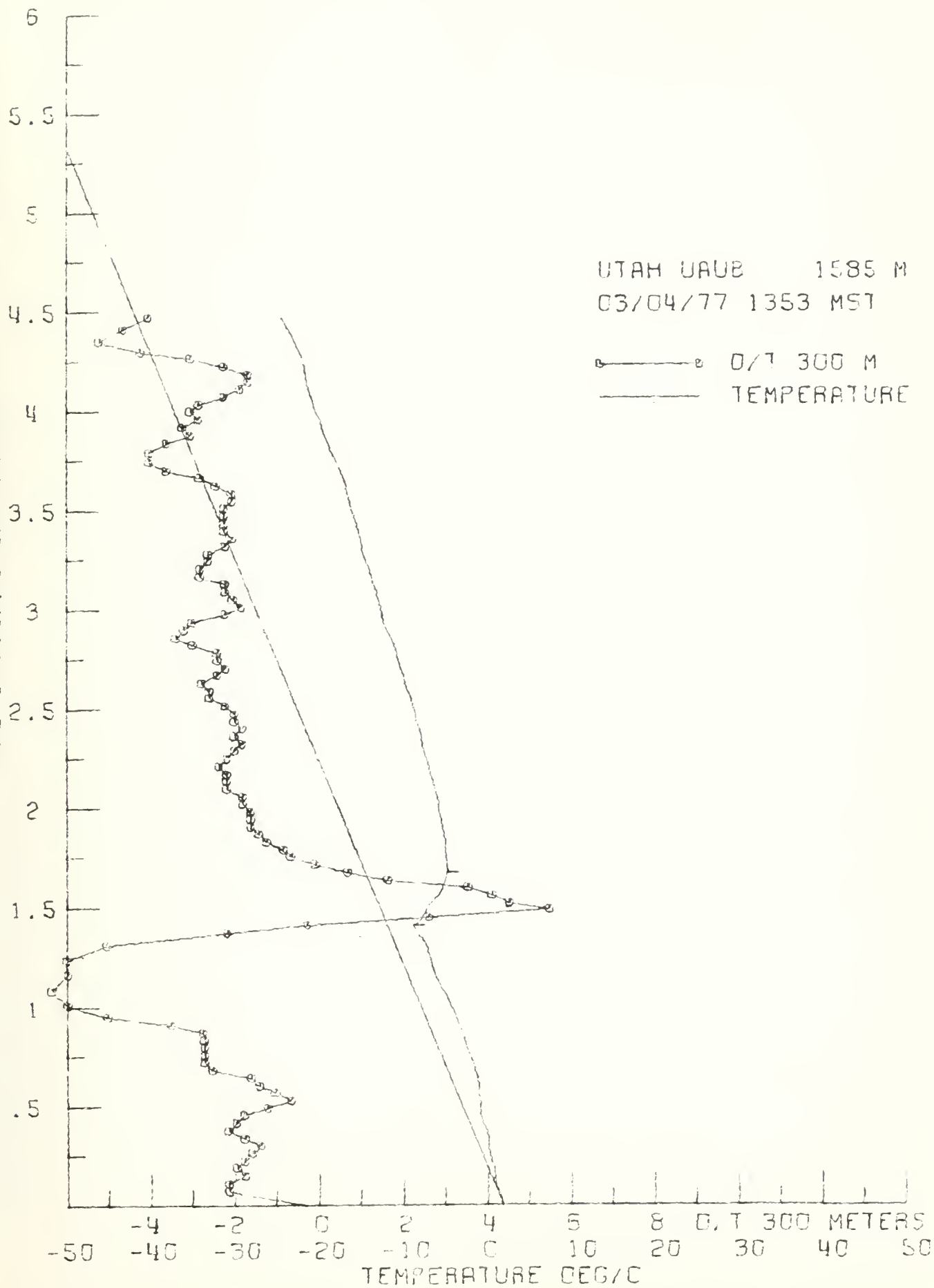
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5

UTAH UAUB 1585 M
03/04/77 0648 MST

—•—•— WIND SPEED
— WIND DIR

0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)

ALTITUDE/METERS X1000



ALTITUDE/METERS X1000

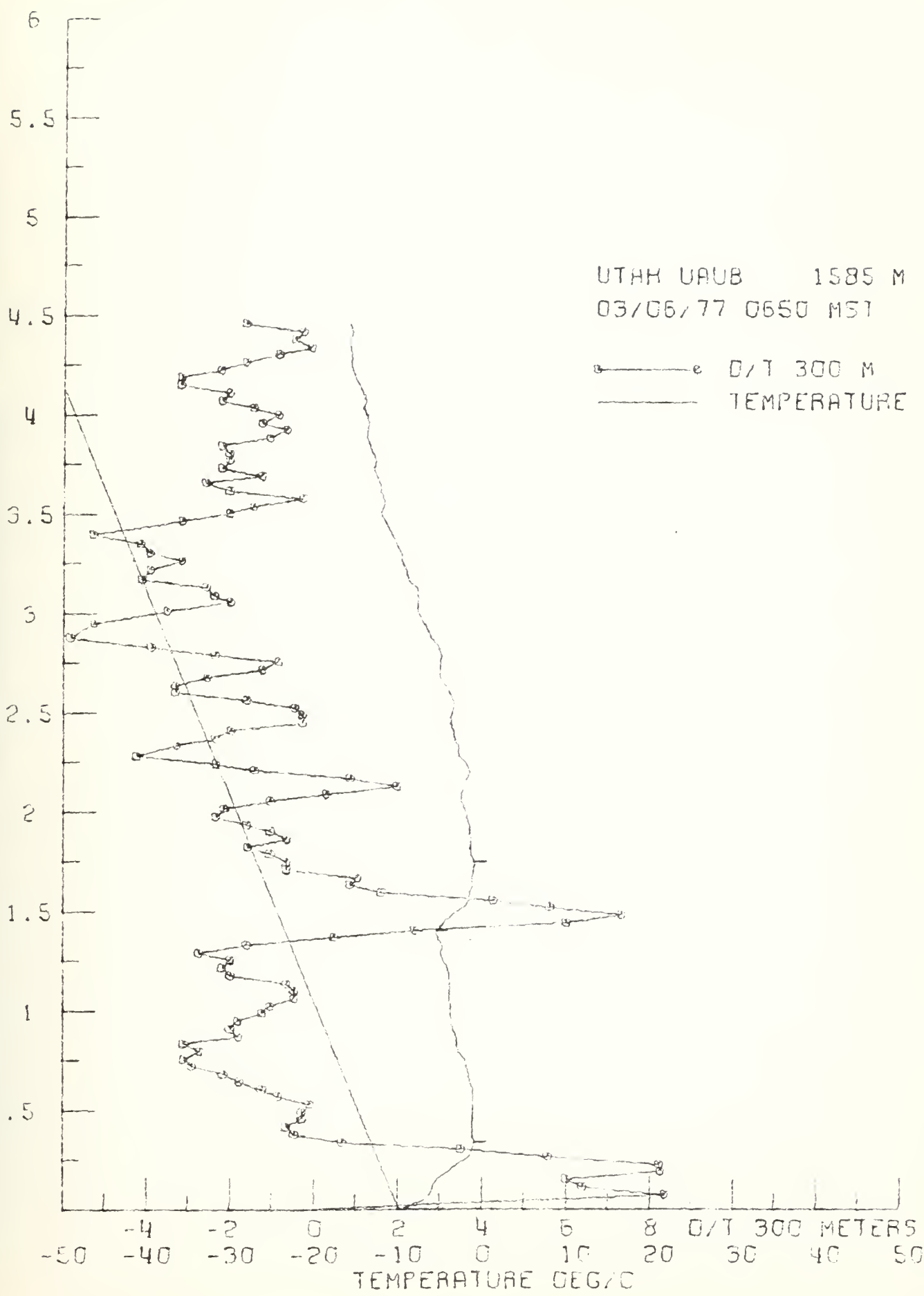
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5

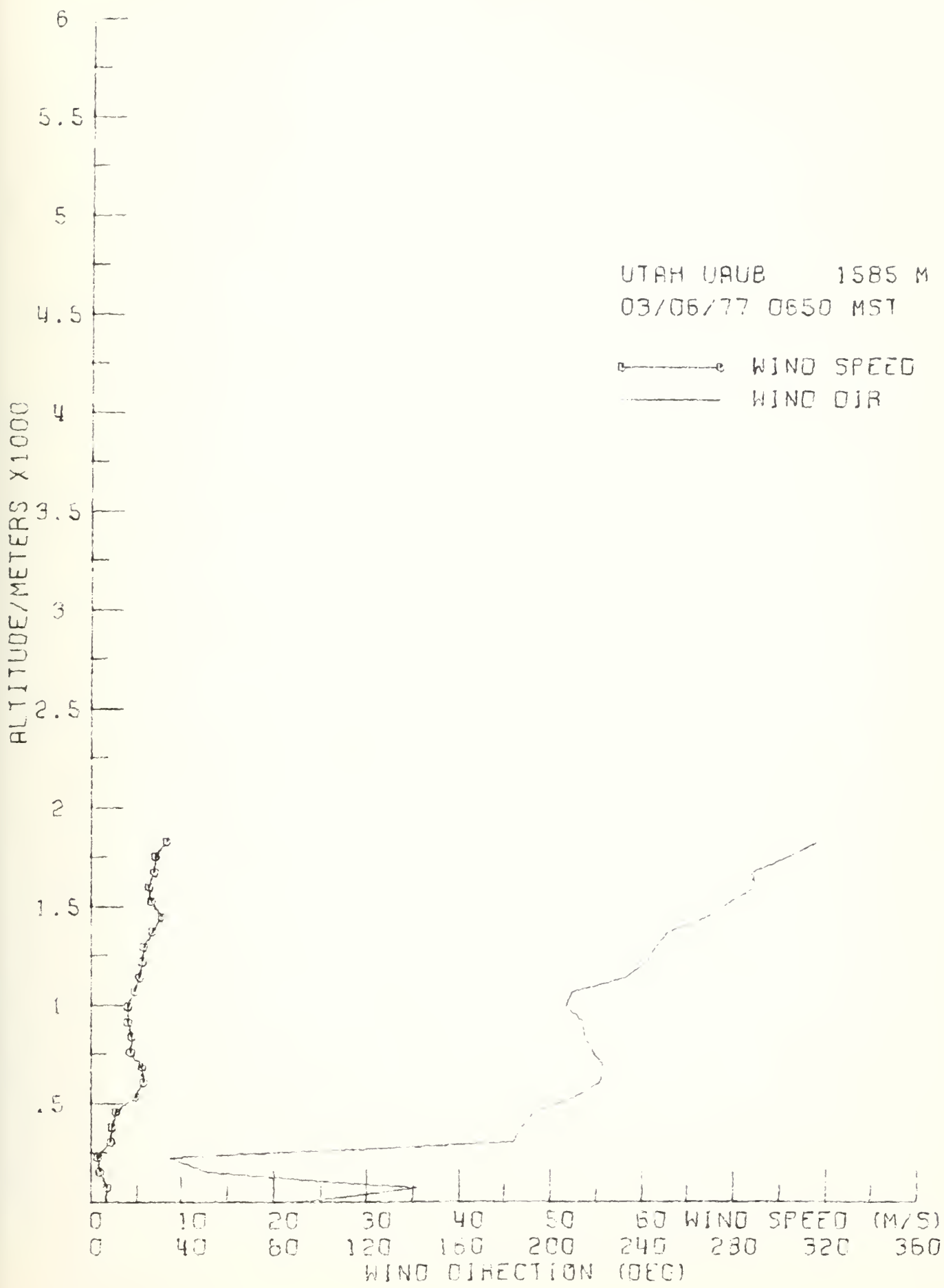
UTAH DAUB 1585 M
03/04/77 1353 MST

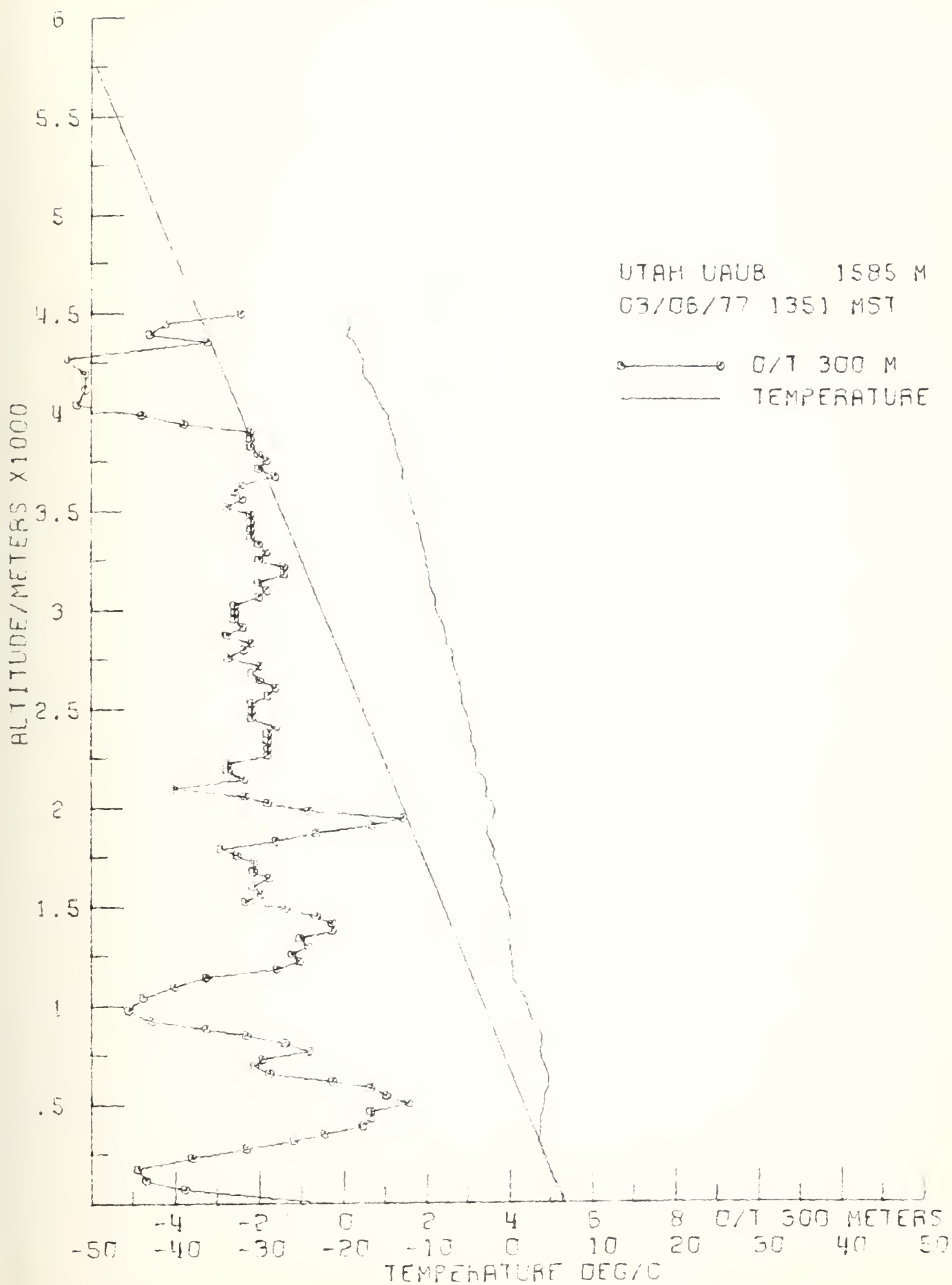
—○— WIND SPEED
— WIND DIR

0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)

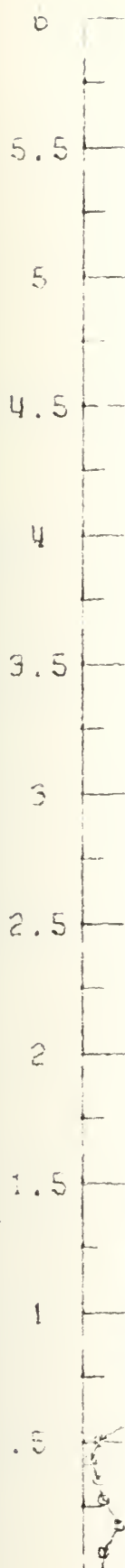
ALTITUDE/METERS X1000





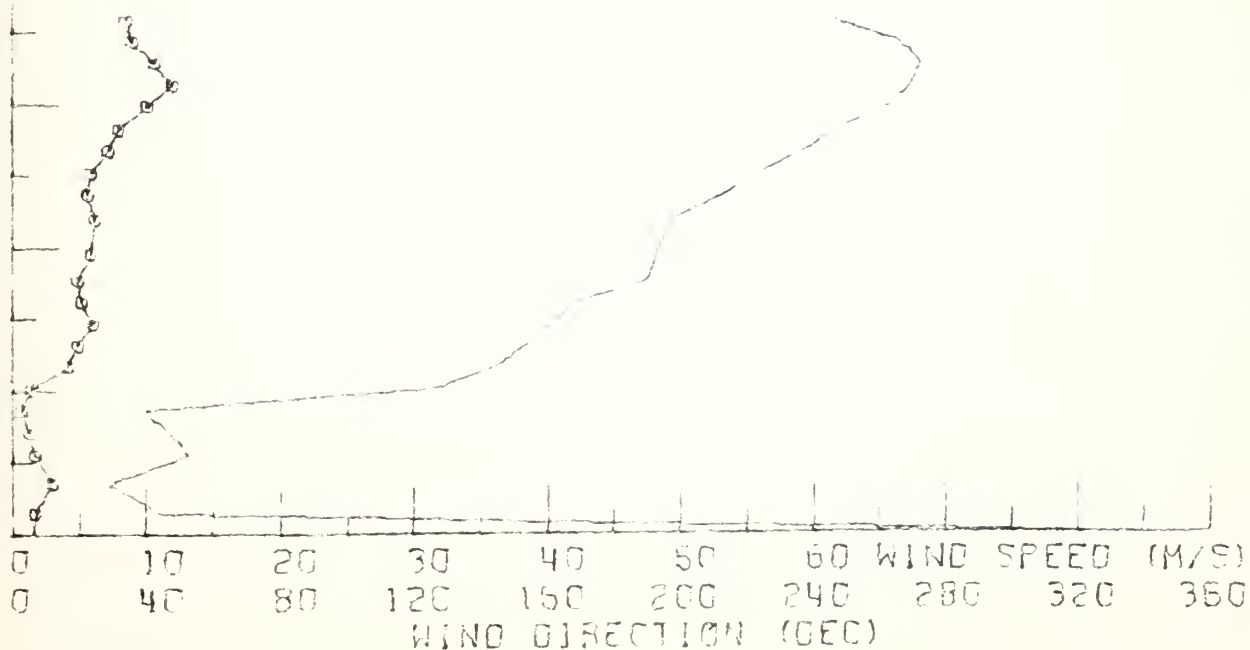


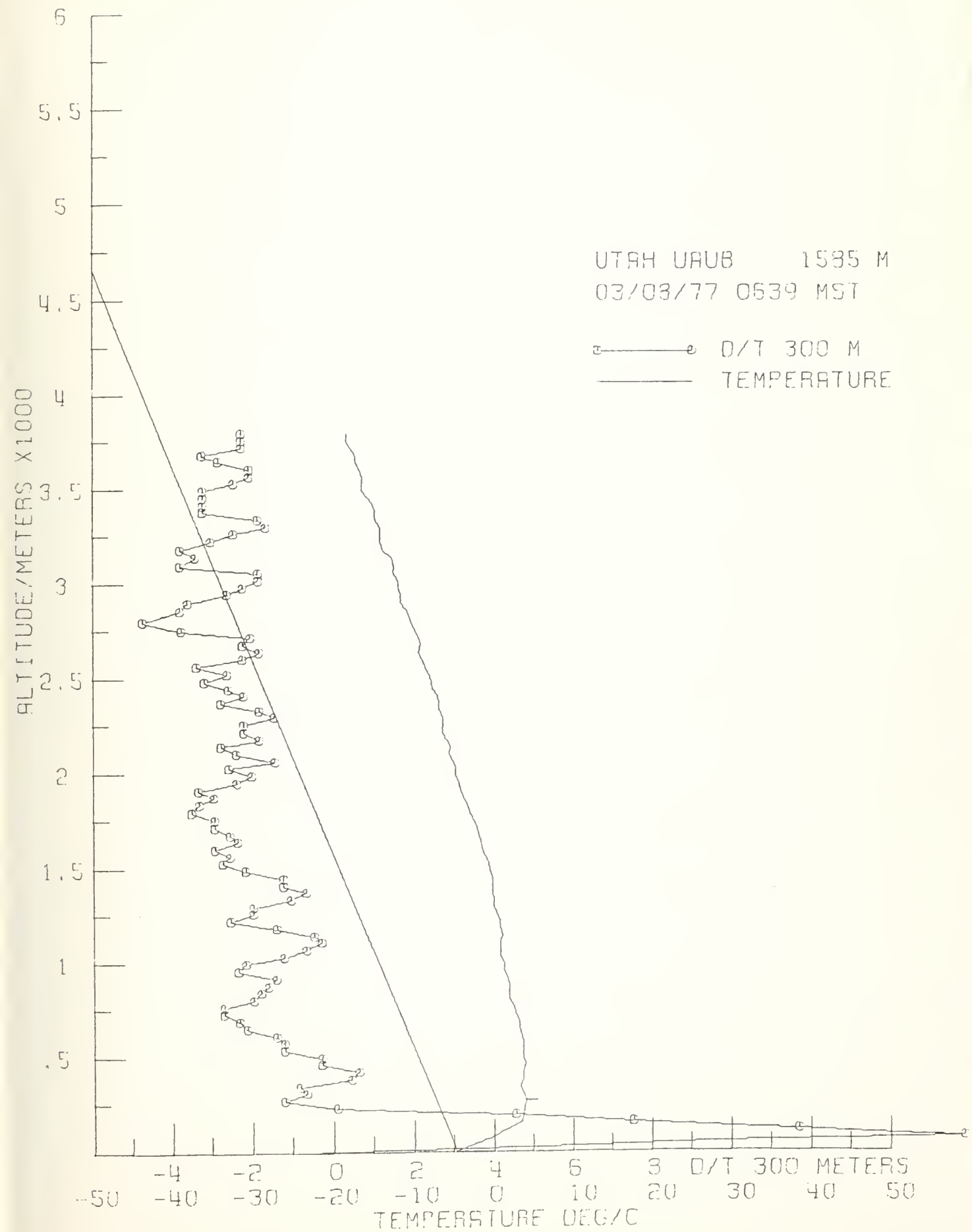
ALTITUDE/METERS X1000

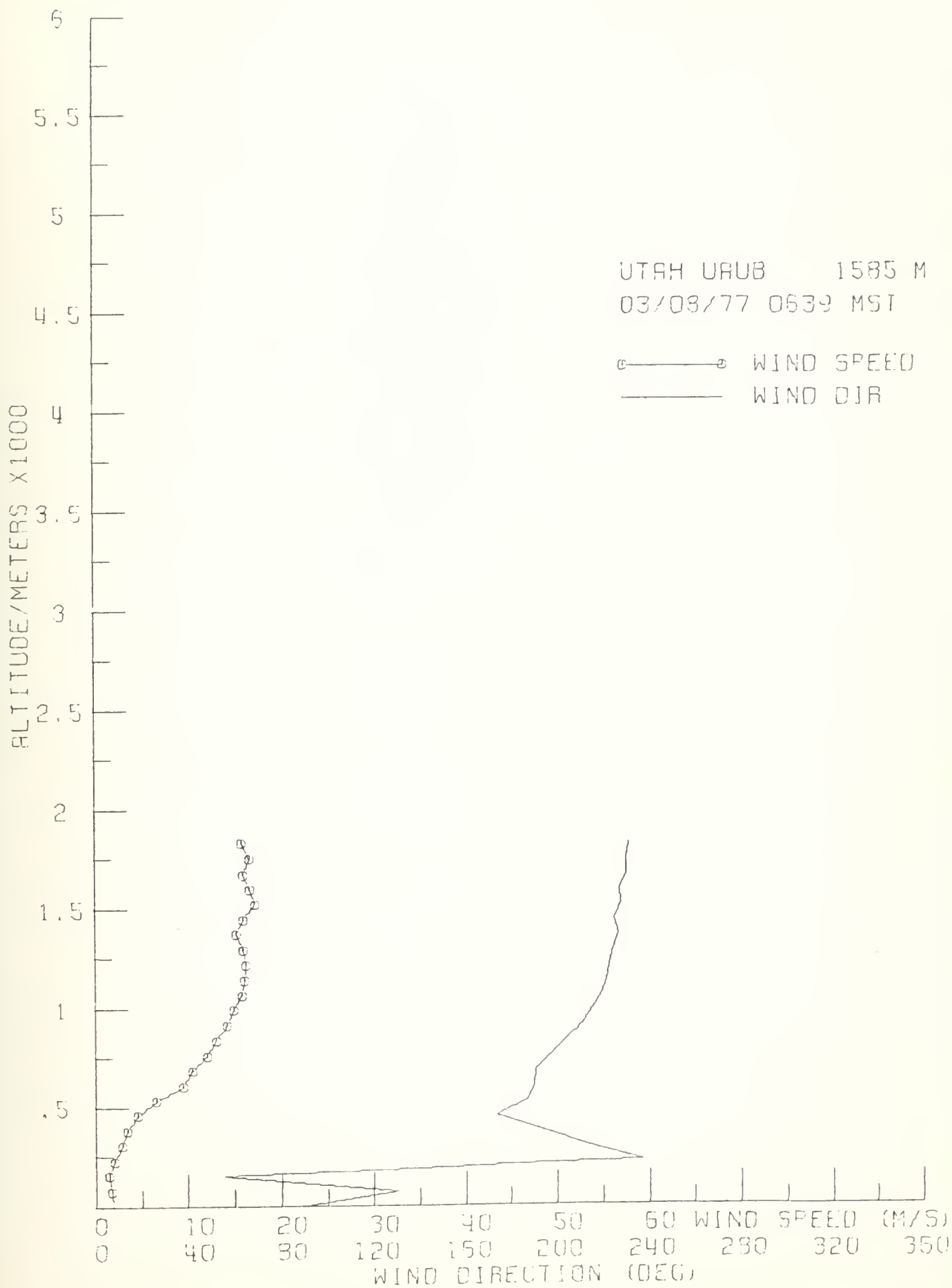


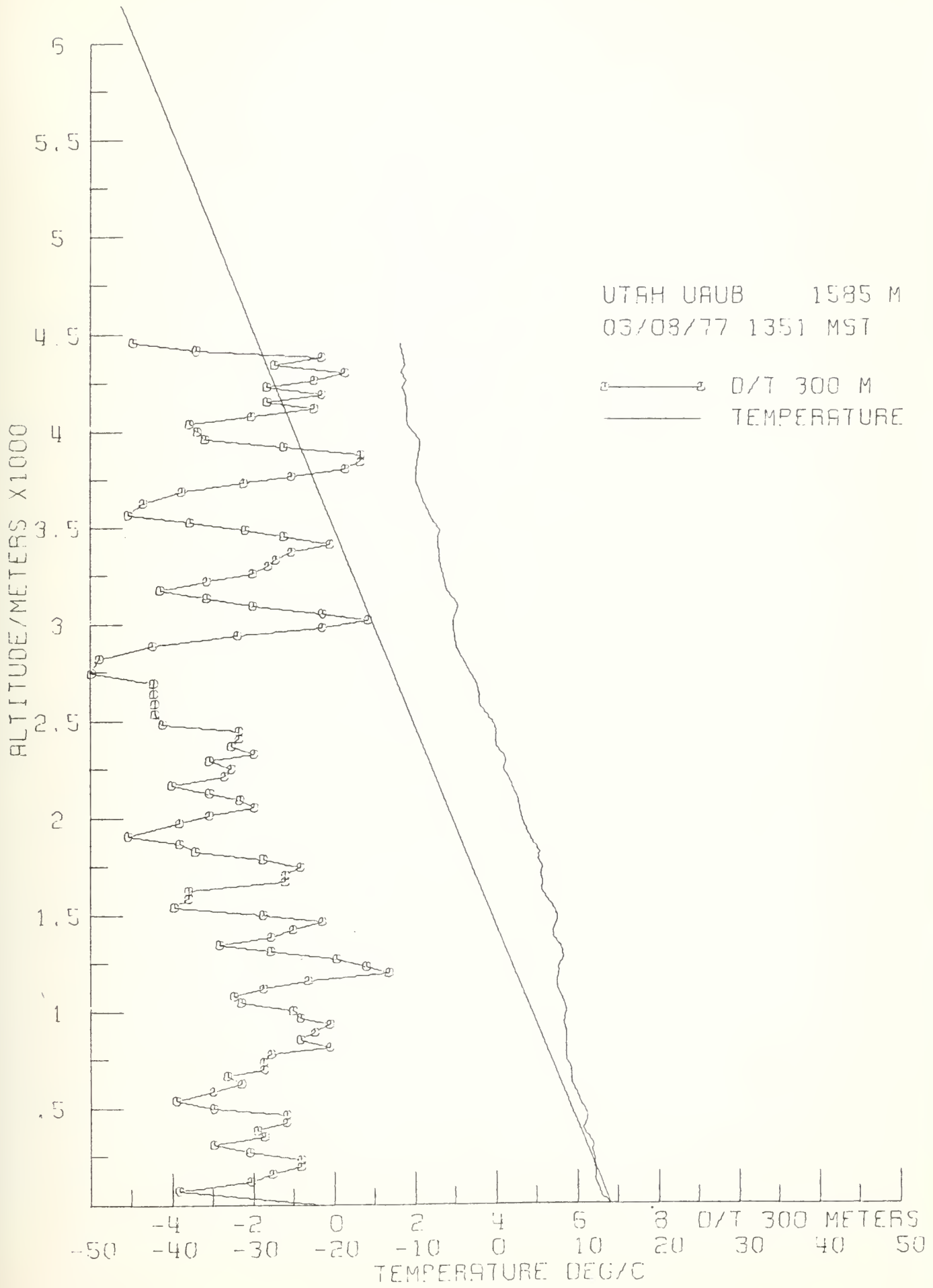
UTAH VALLEY 1585 M
03/06/77 1351 MST

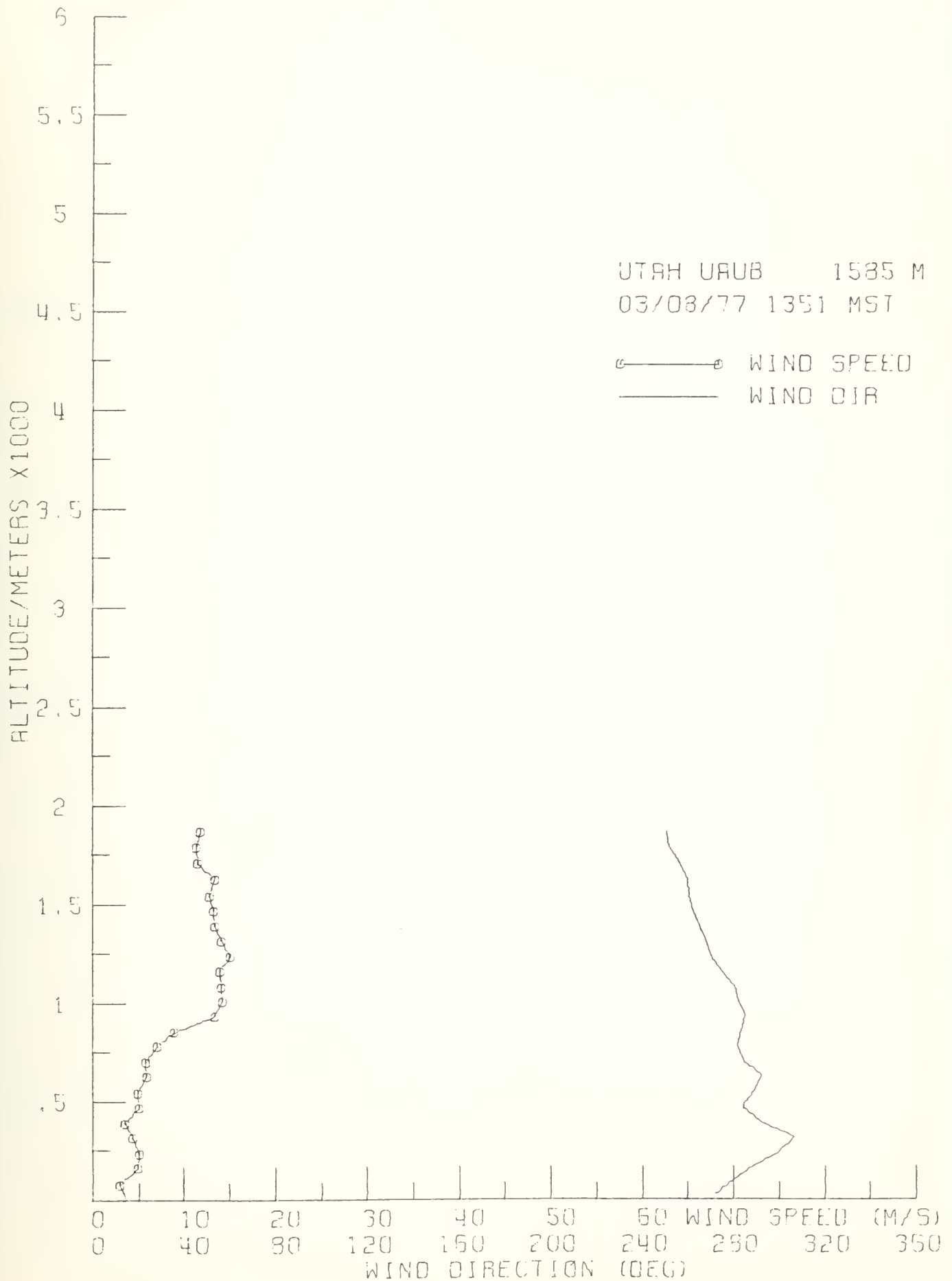
WIND SPEED
WIND DIR



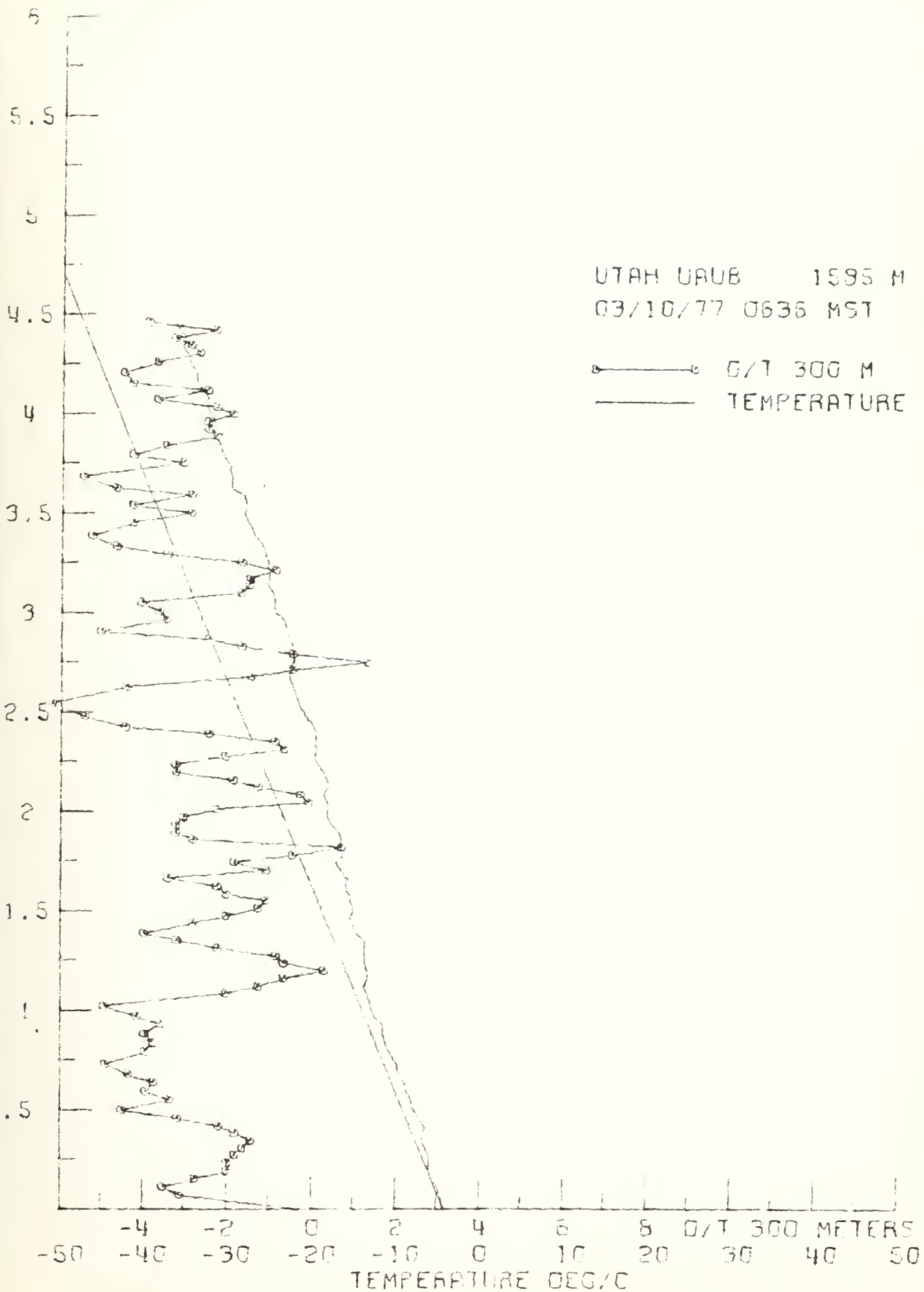




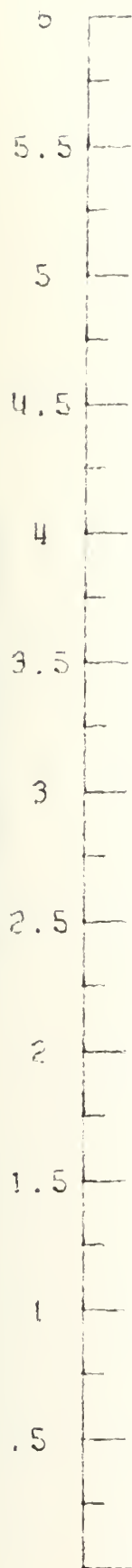




ALTITUDE/METERS X1000



ALTITUDE/METERS X1000

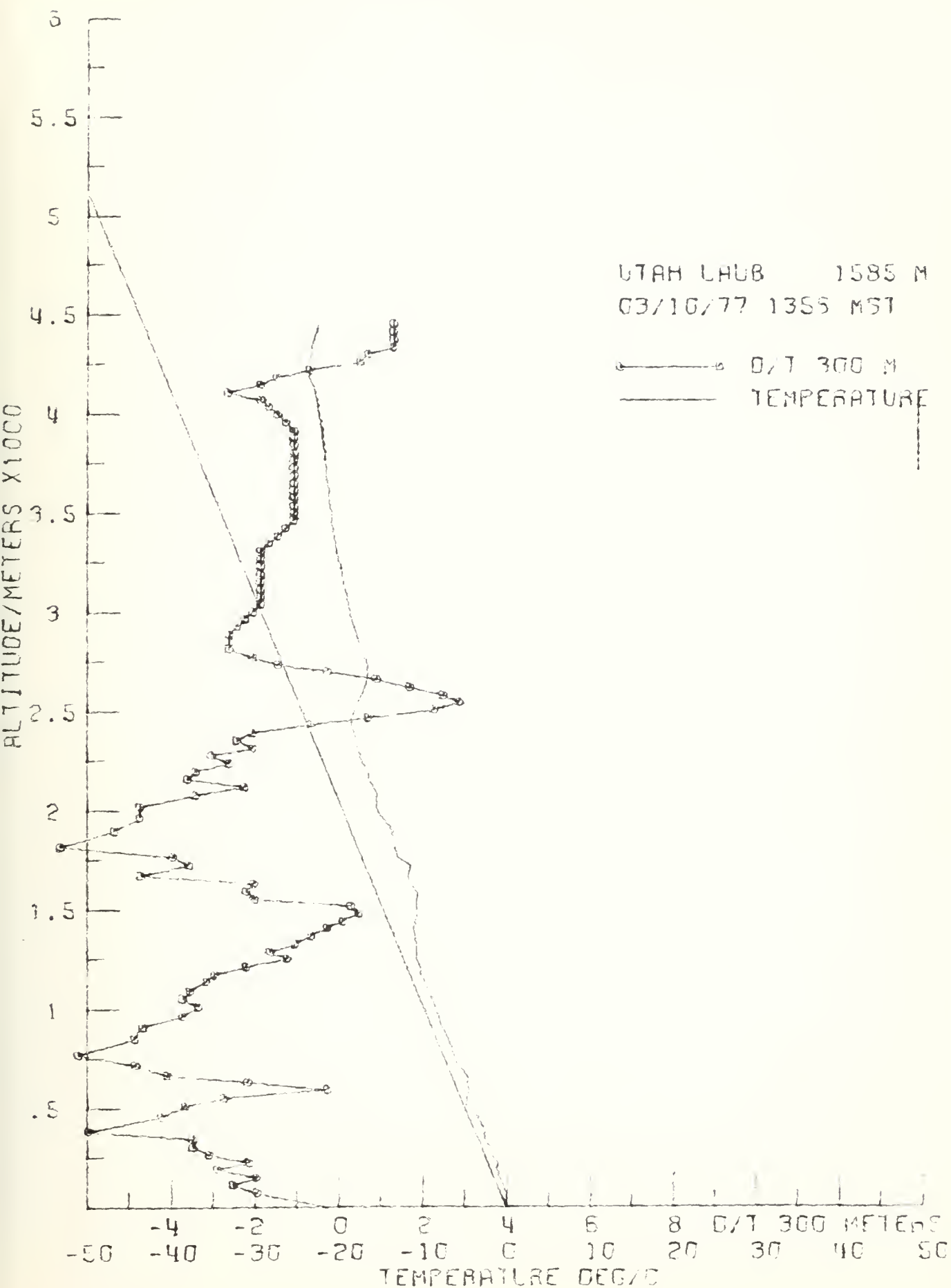


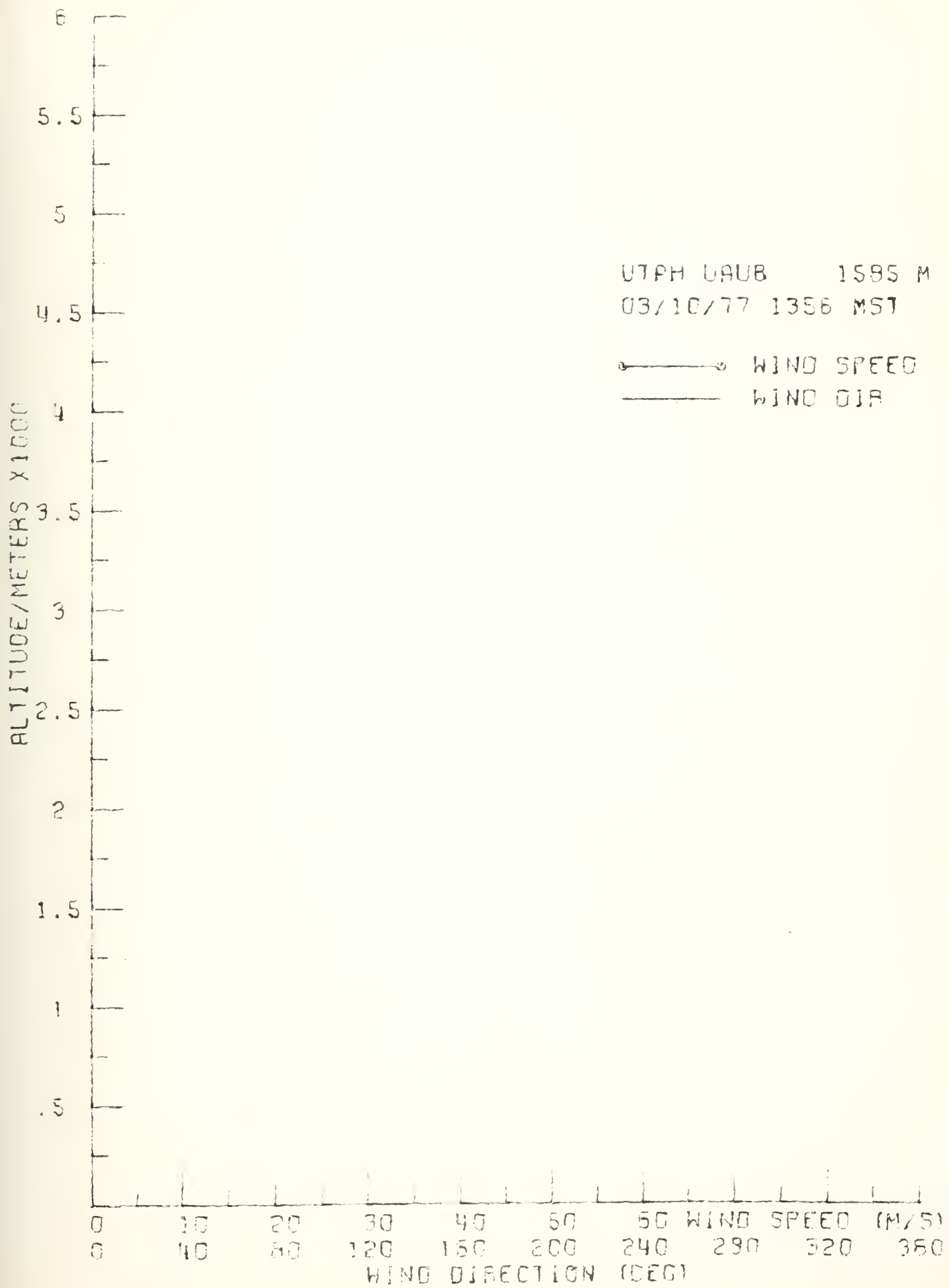
UTAH UAD8 1585 M

03/10/77 0630 MST

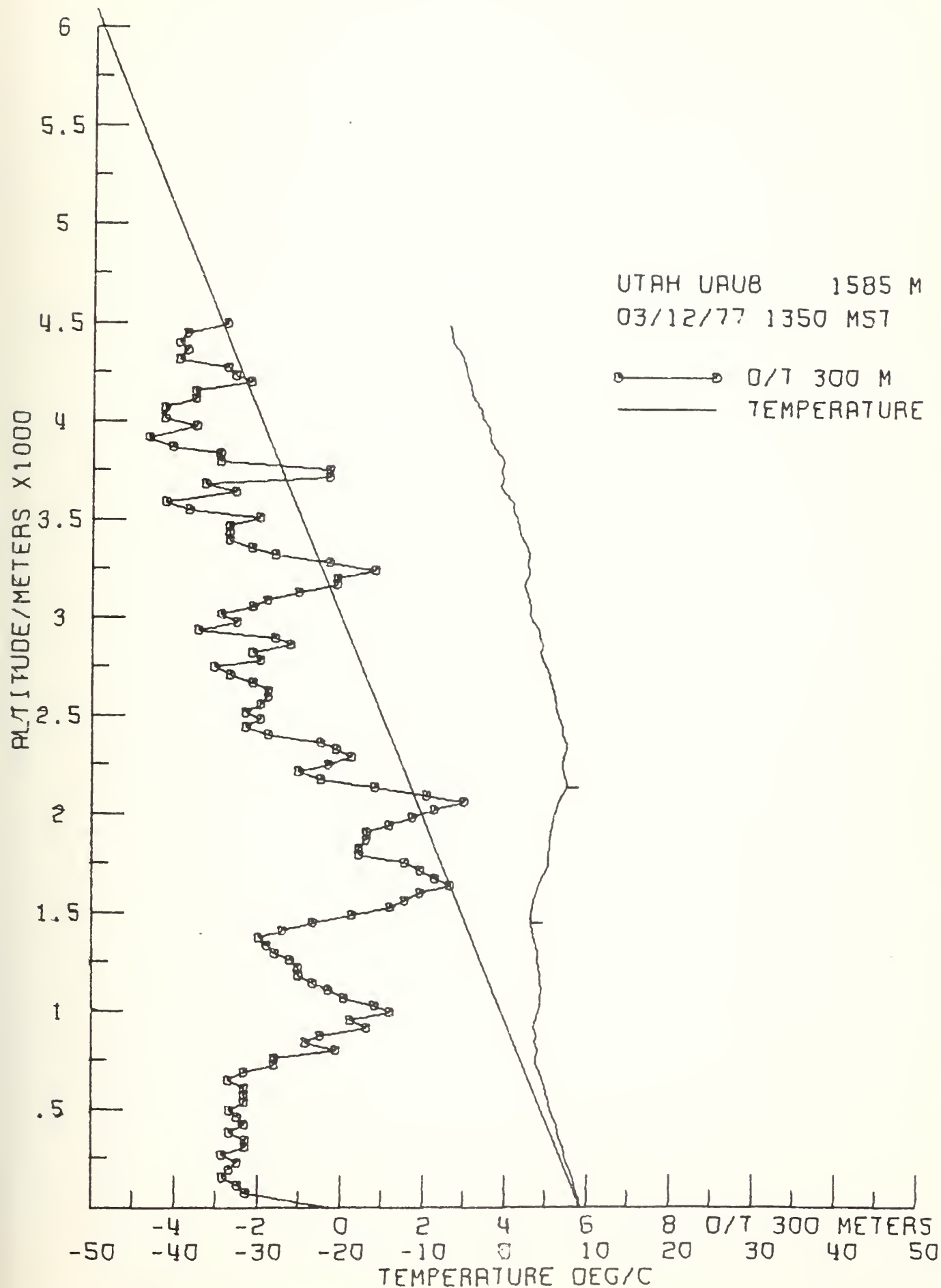
—○— WIND SPEED
— WIND DIR

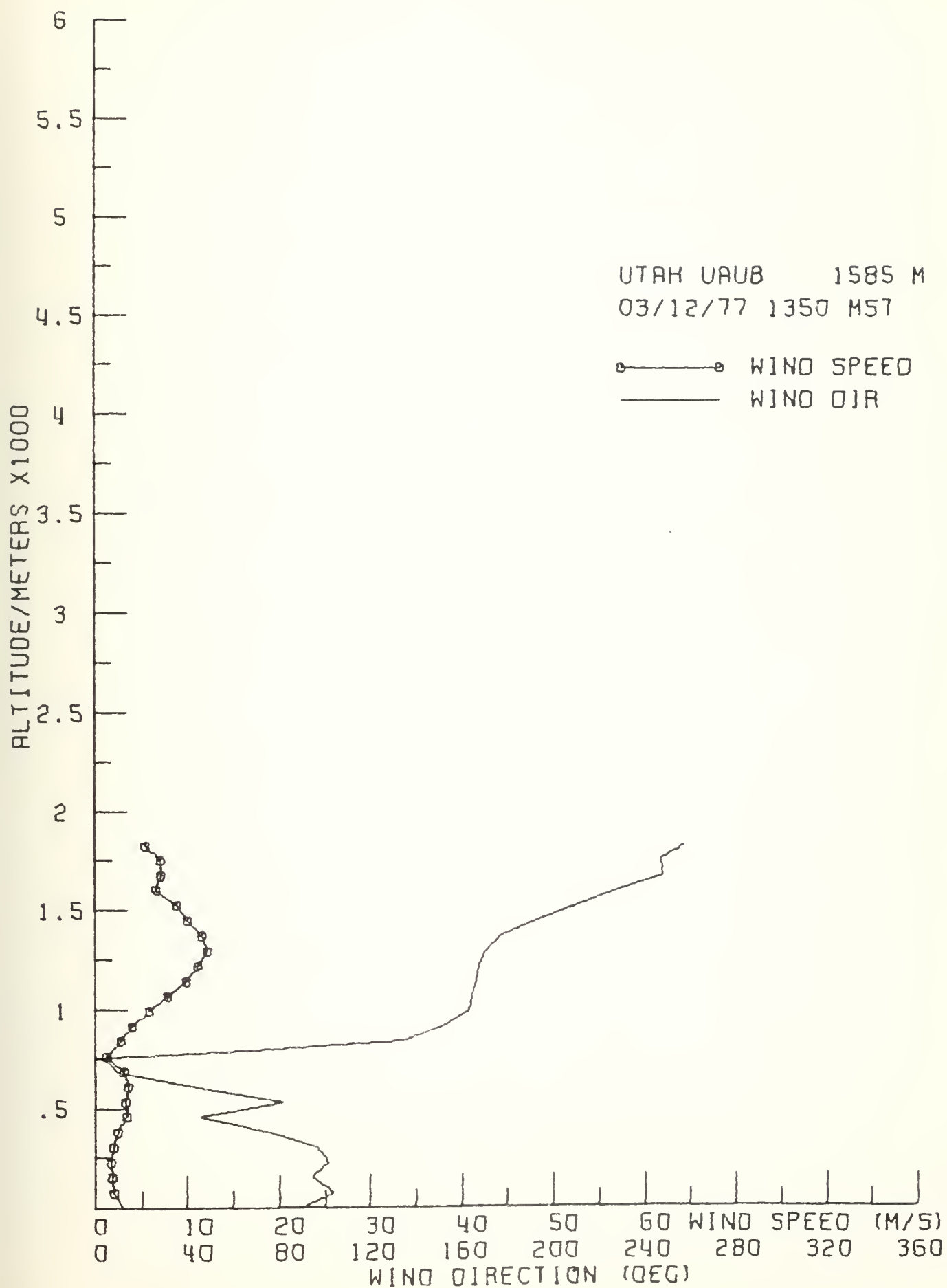
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)

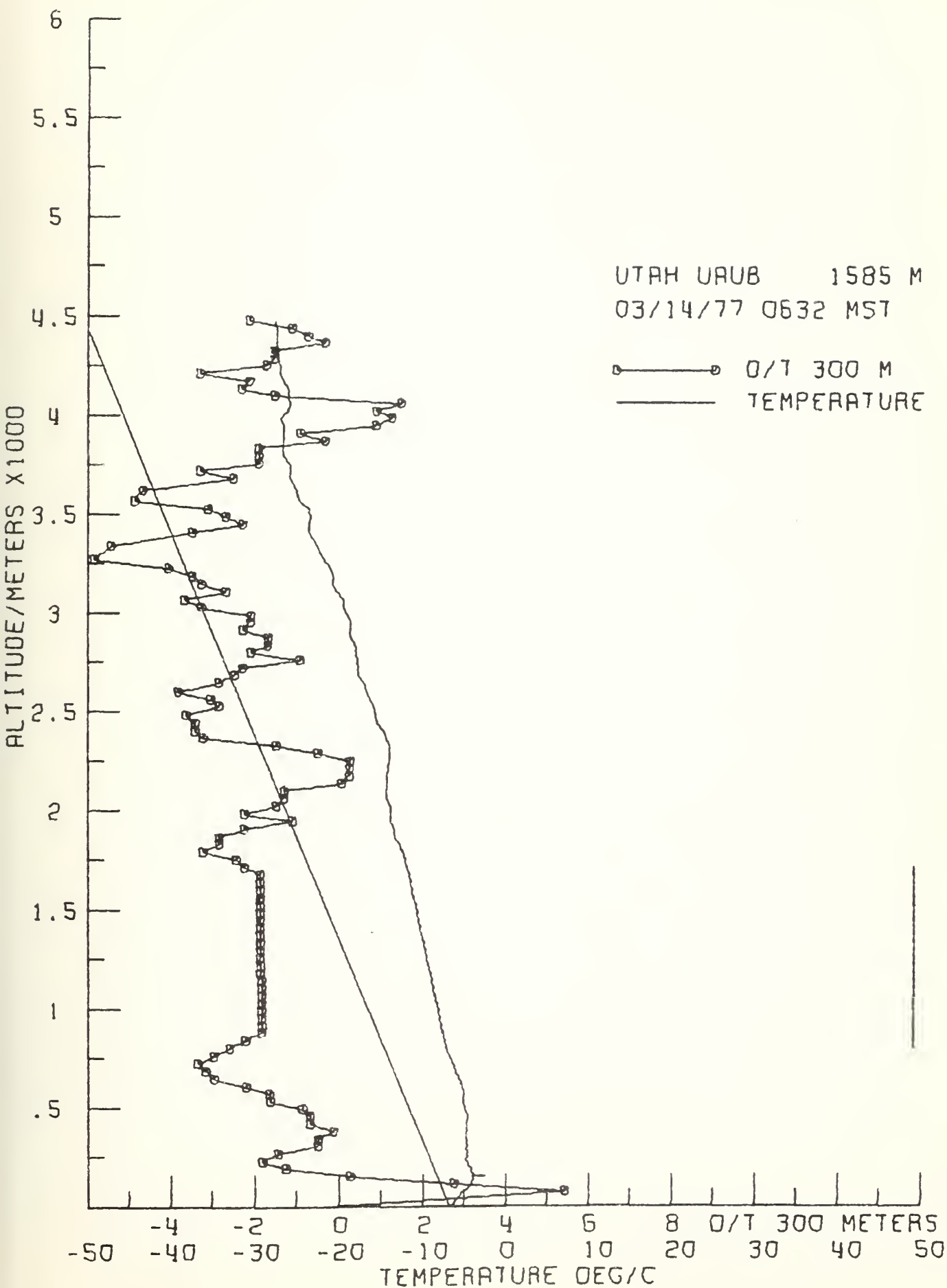


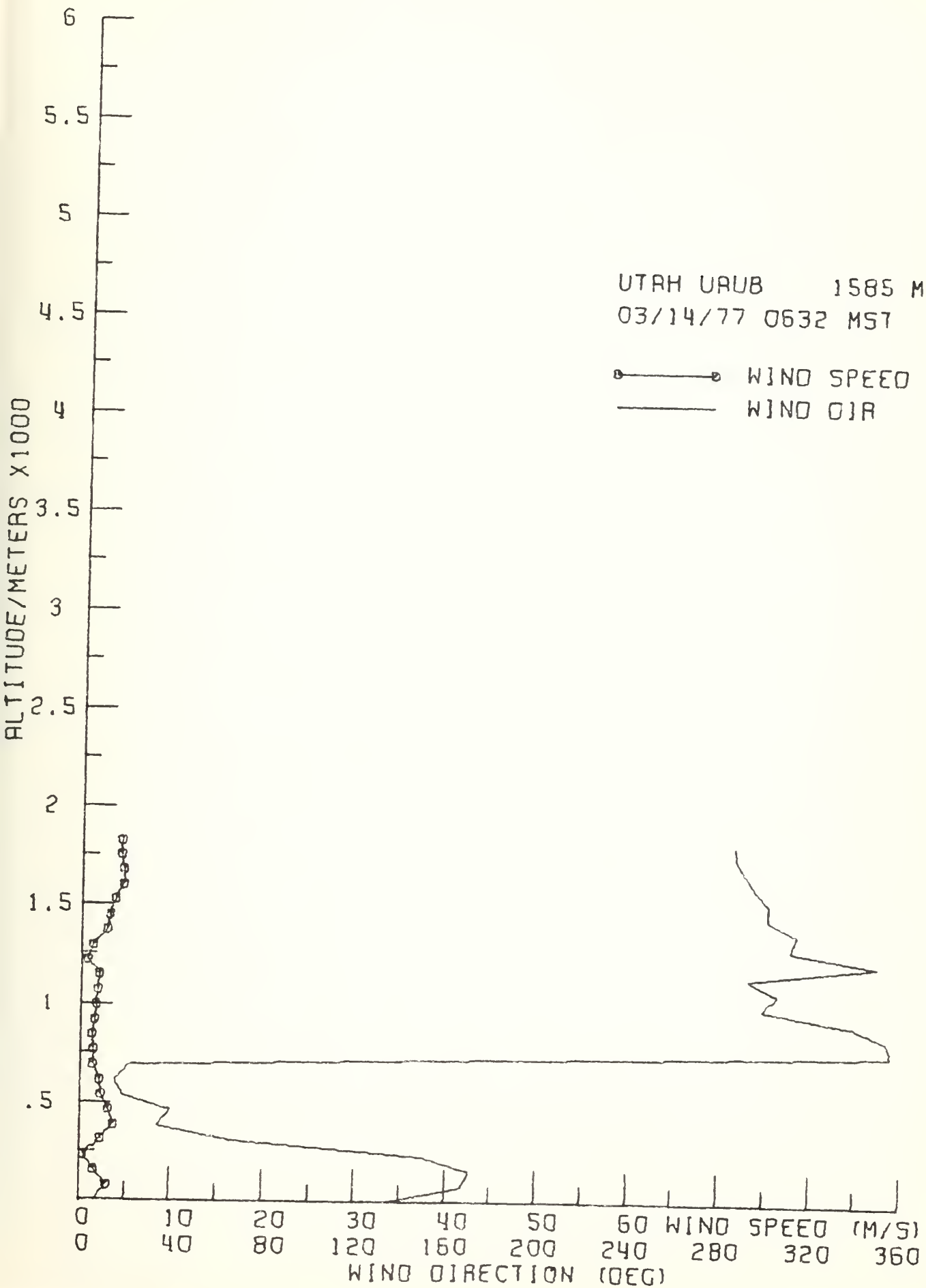


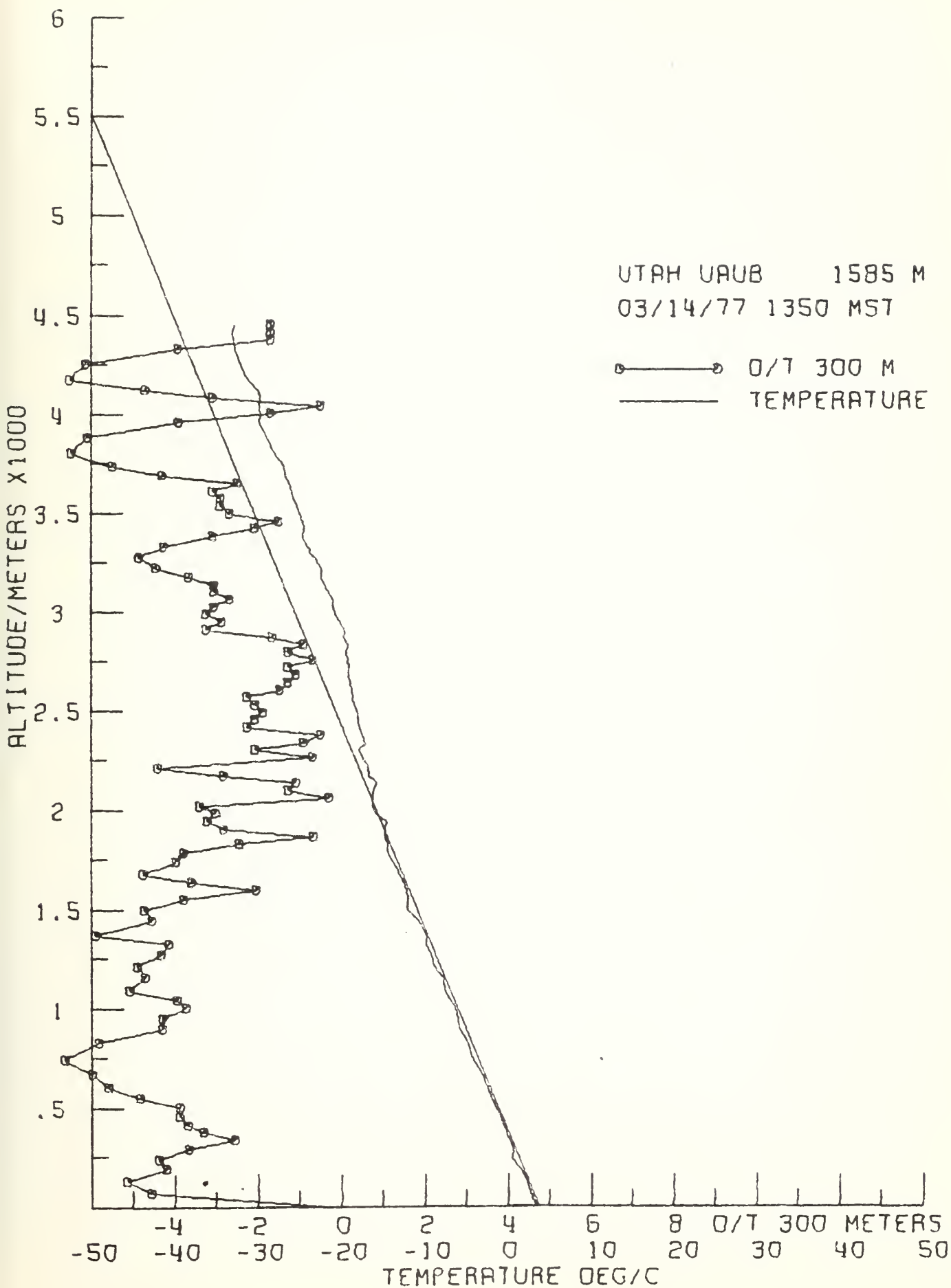
UTAH LAUB 1585 M
03/10/77 1356 MST

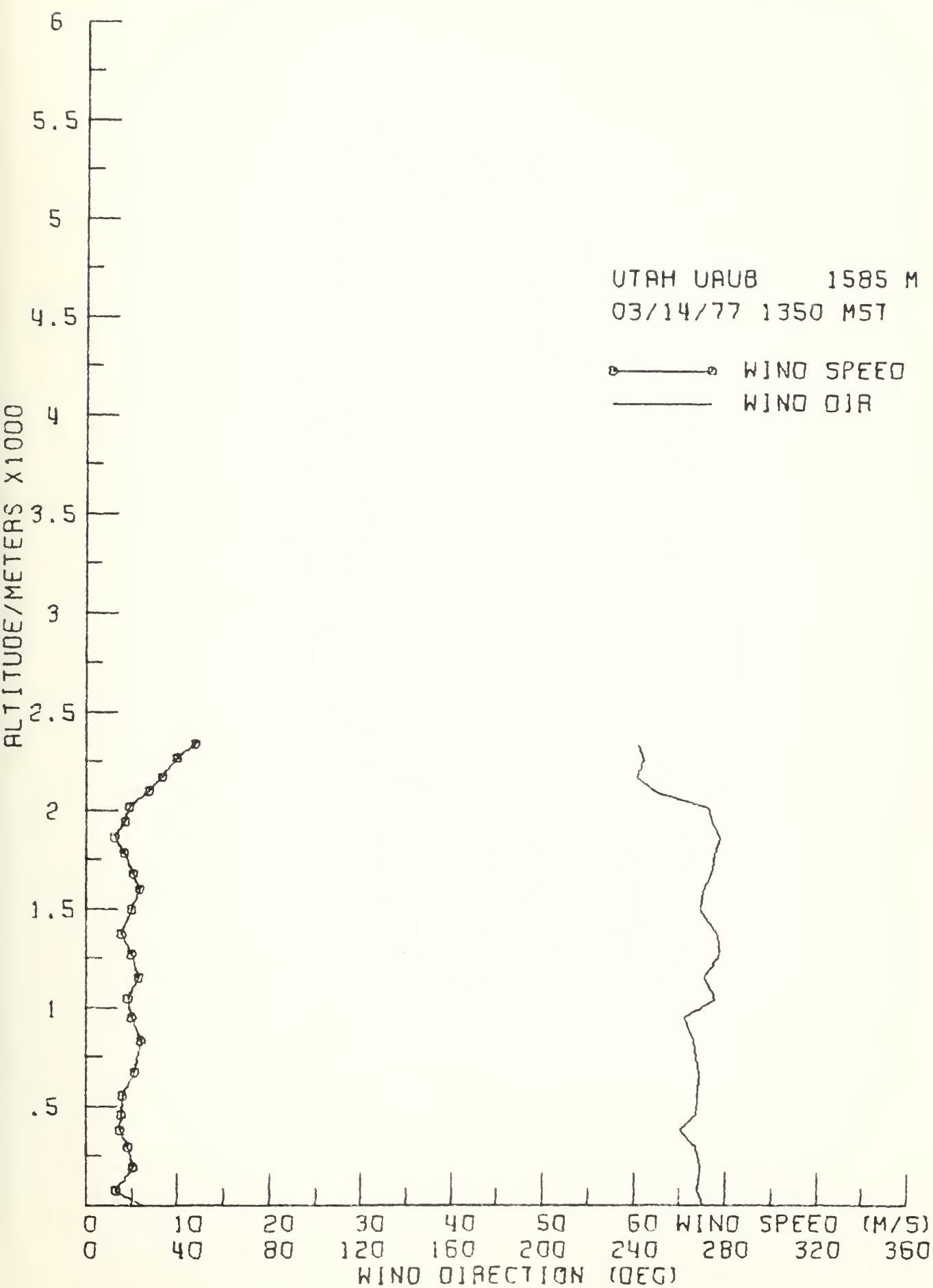


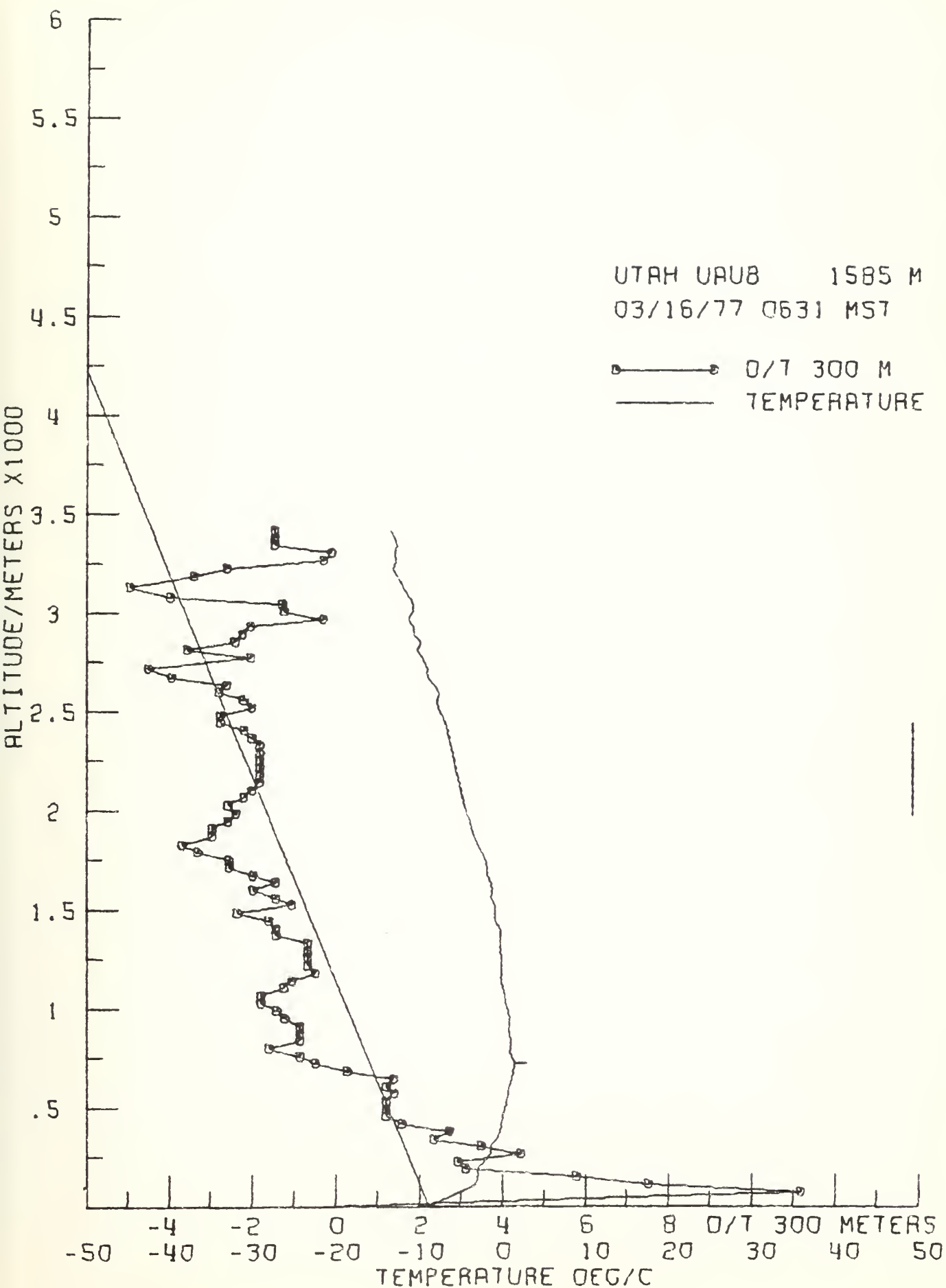




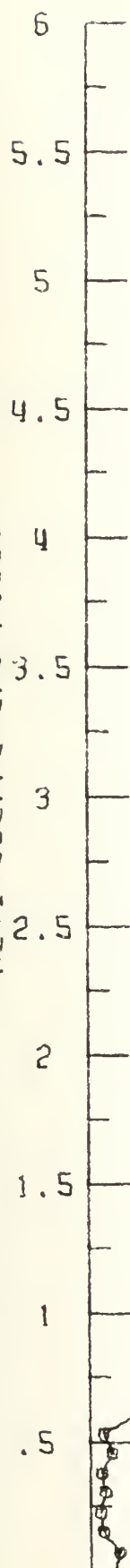






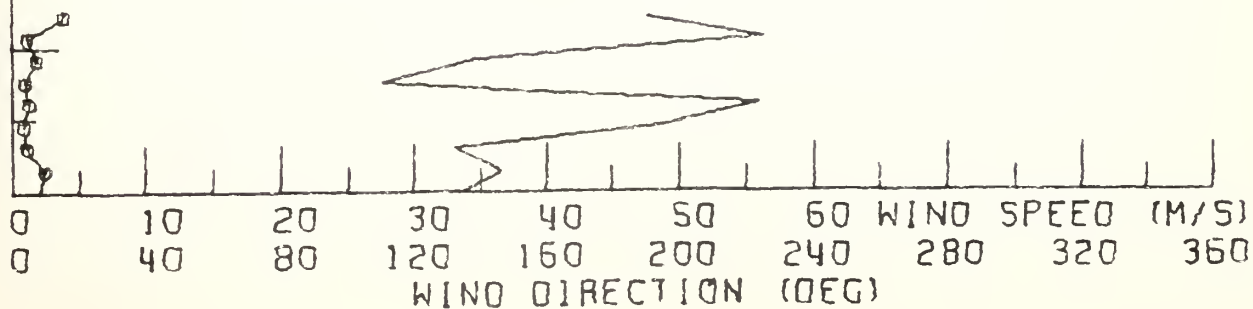


ALTITUDE/METERS X1000

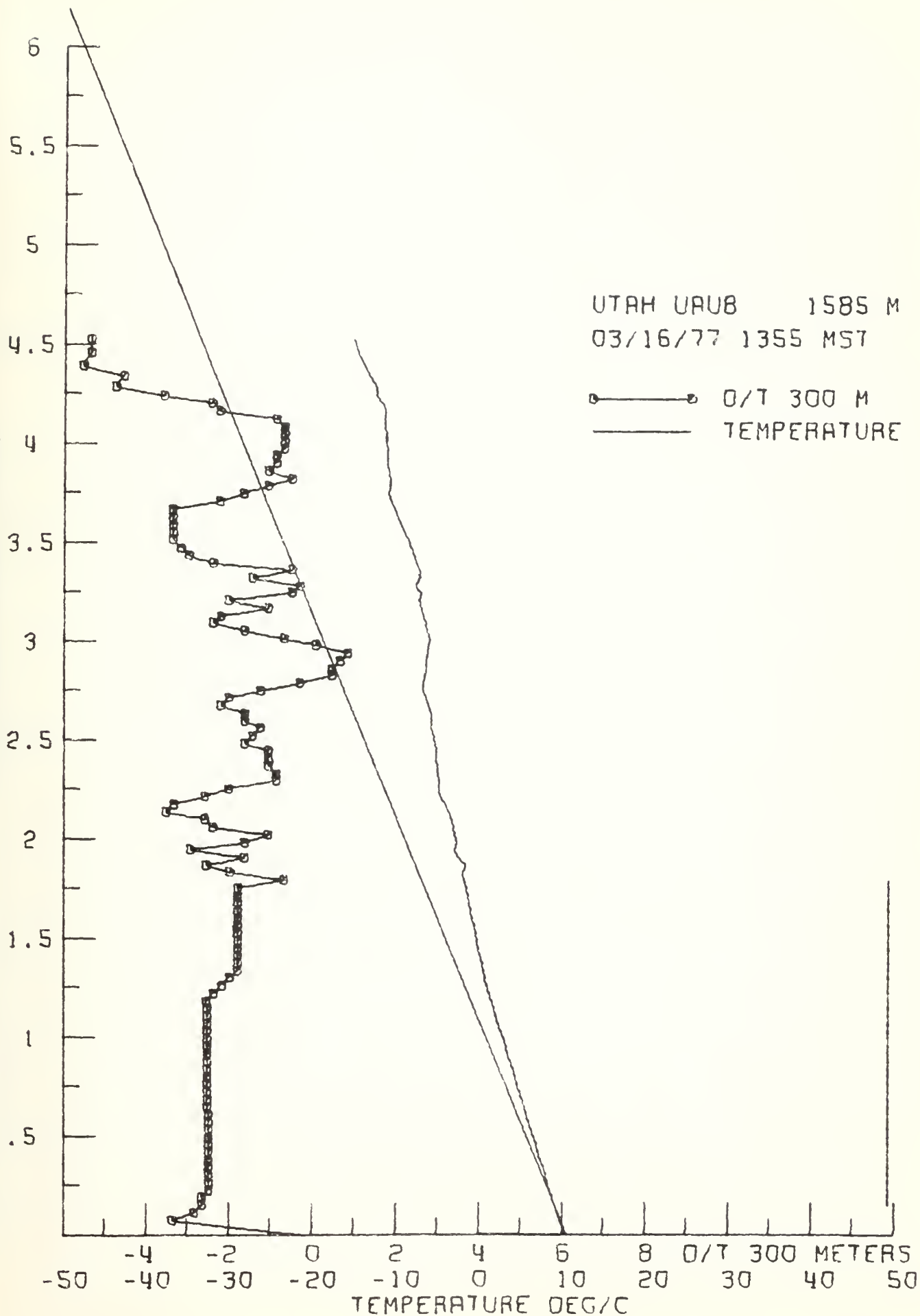


UTAH UAUB 1585 M
03/16/77 0631 MST

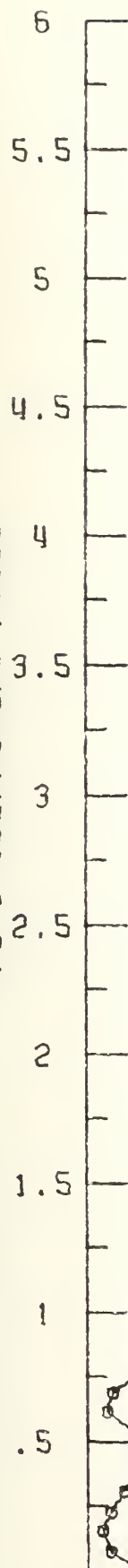
—○— WIND SPEED
— WIND DIR



ALTITUDE/METERS X1000

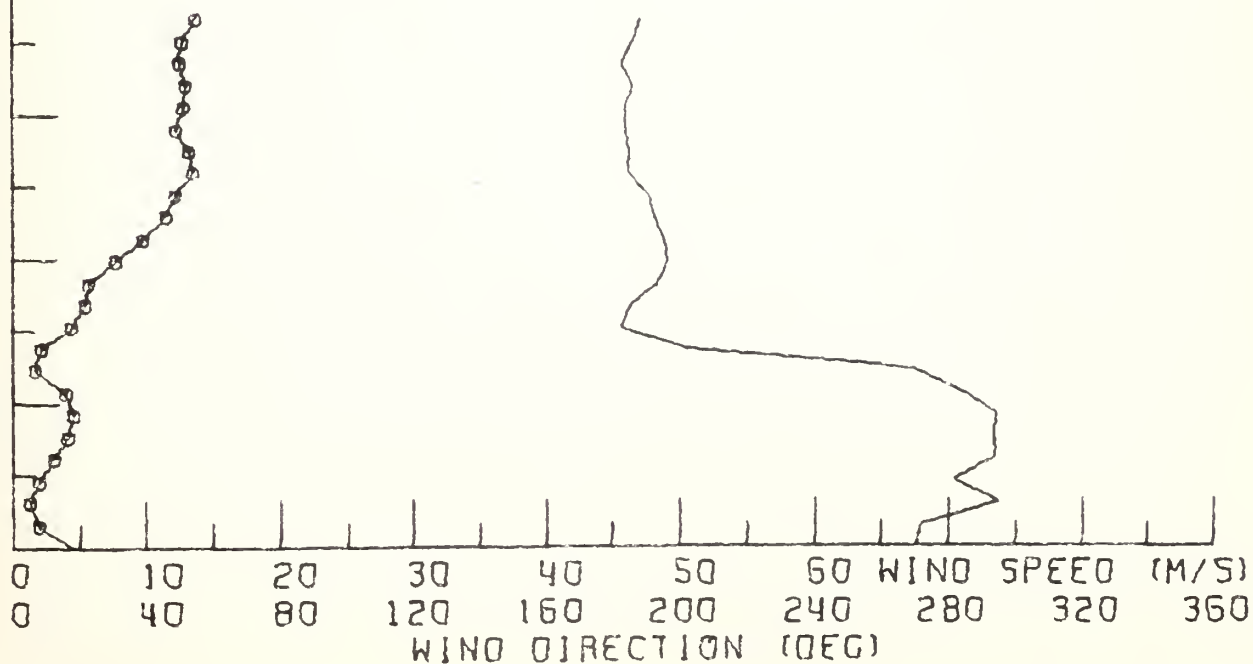


ALTITUDE/METERS X1000

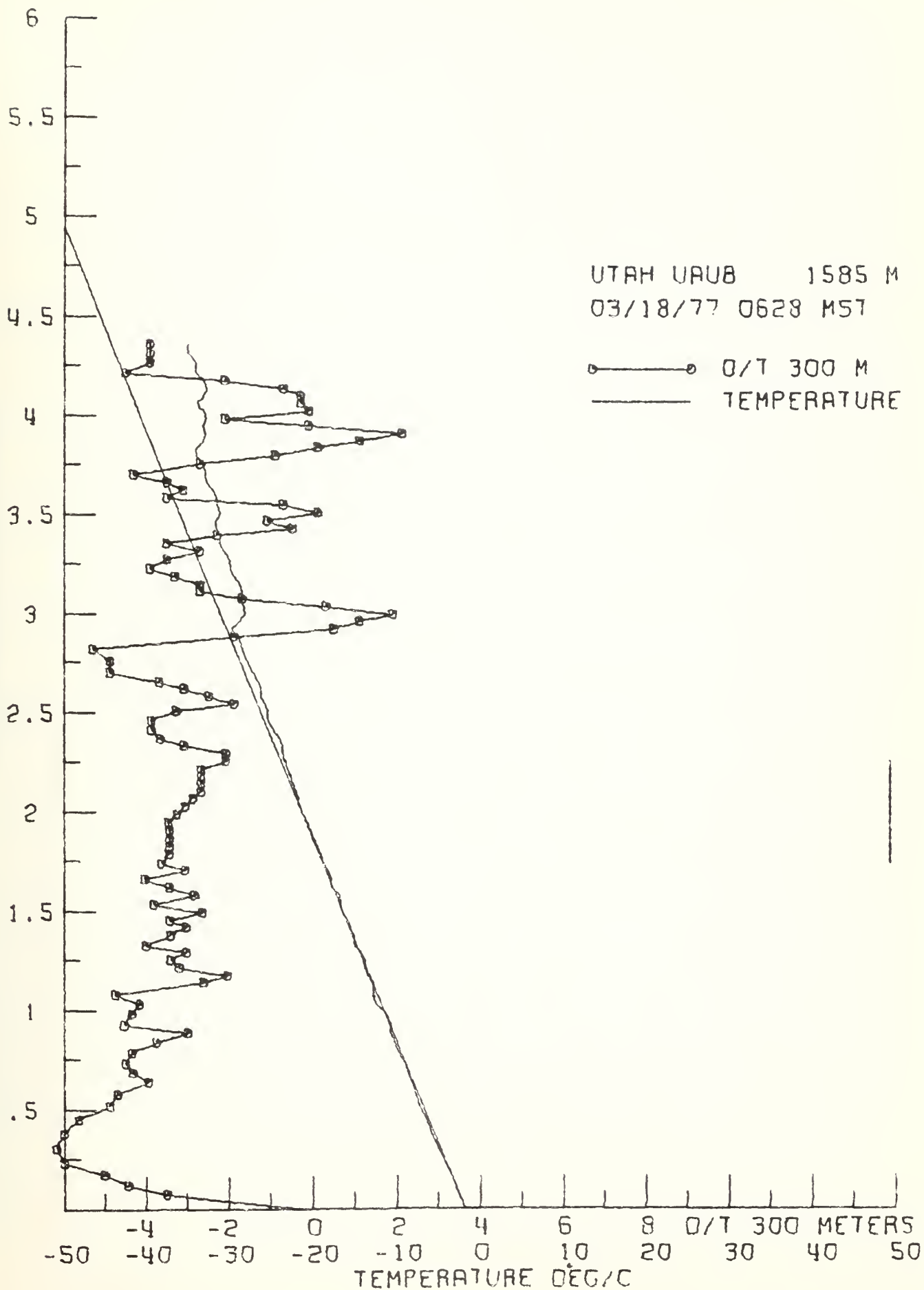


UTAH UAUB 1585 M
03/16/77 1355 MST

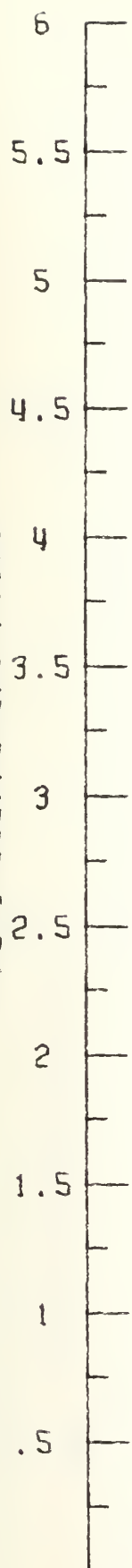
—○— WIND SPEED
— WIND DIR



ALTITUDE/METERS X1000



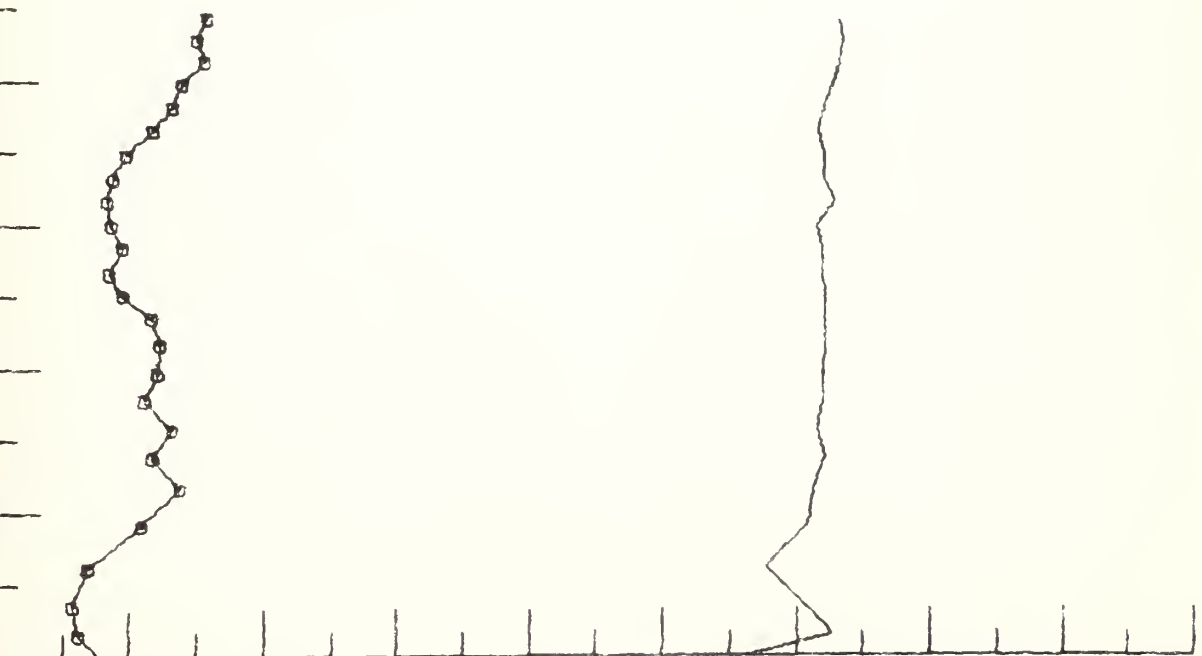
ALTITUDE/METERS X1000



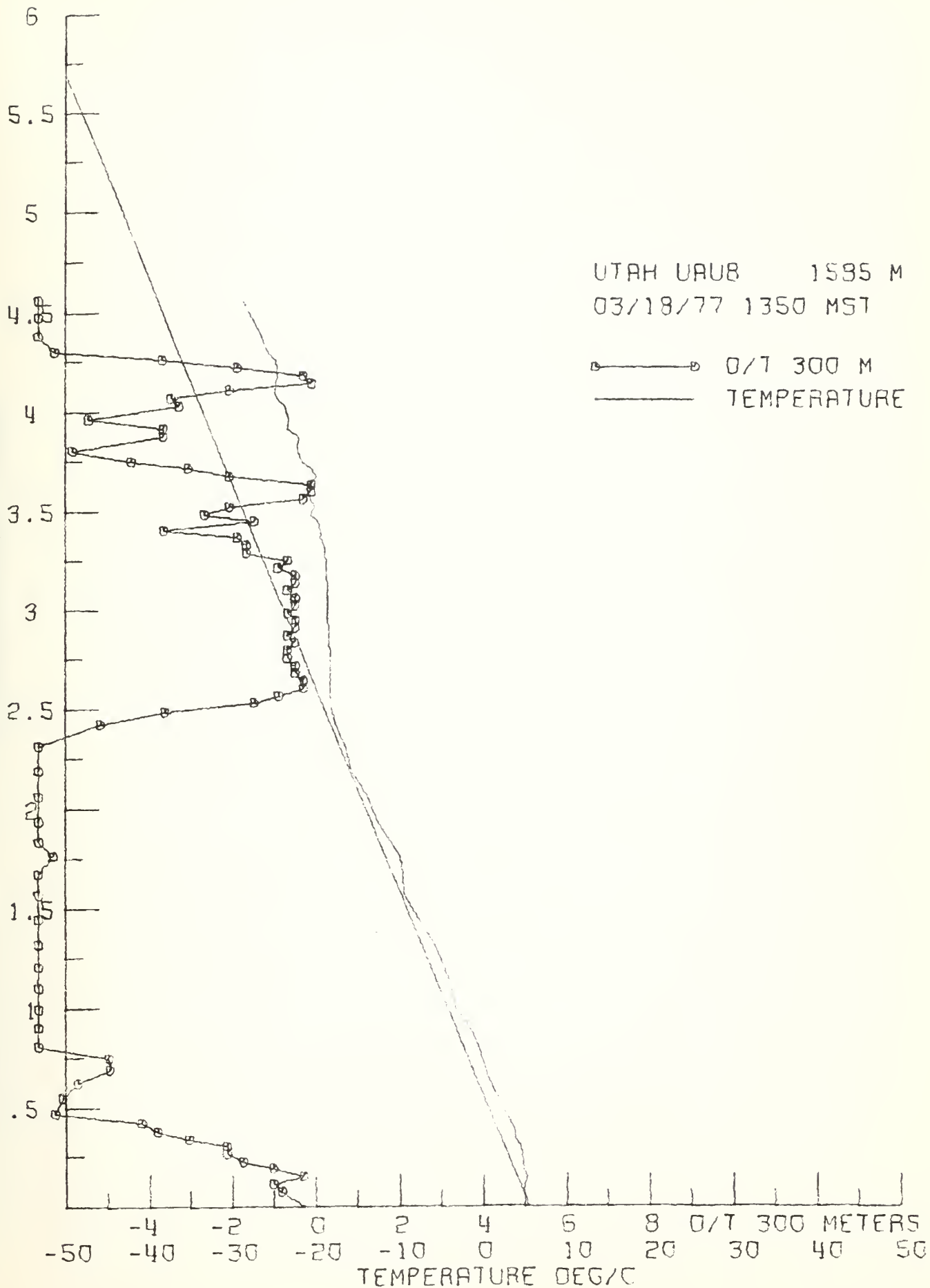
UTAH UAUB 1585 M
03/18/77 0628 MST

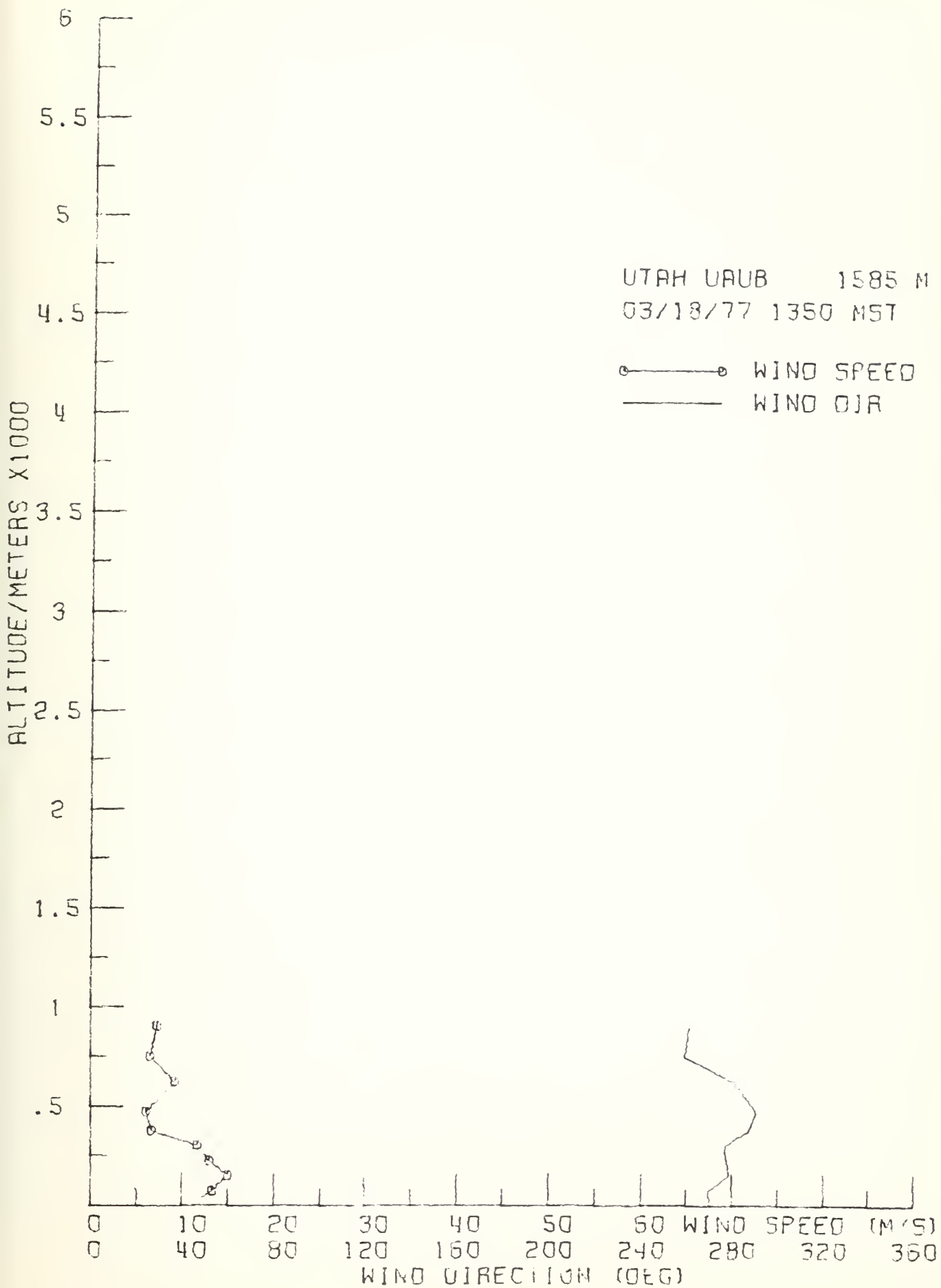
—○— WIND SPEED
— WIND DIR

0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)

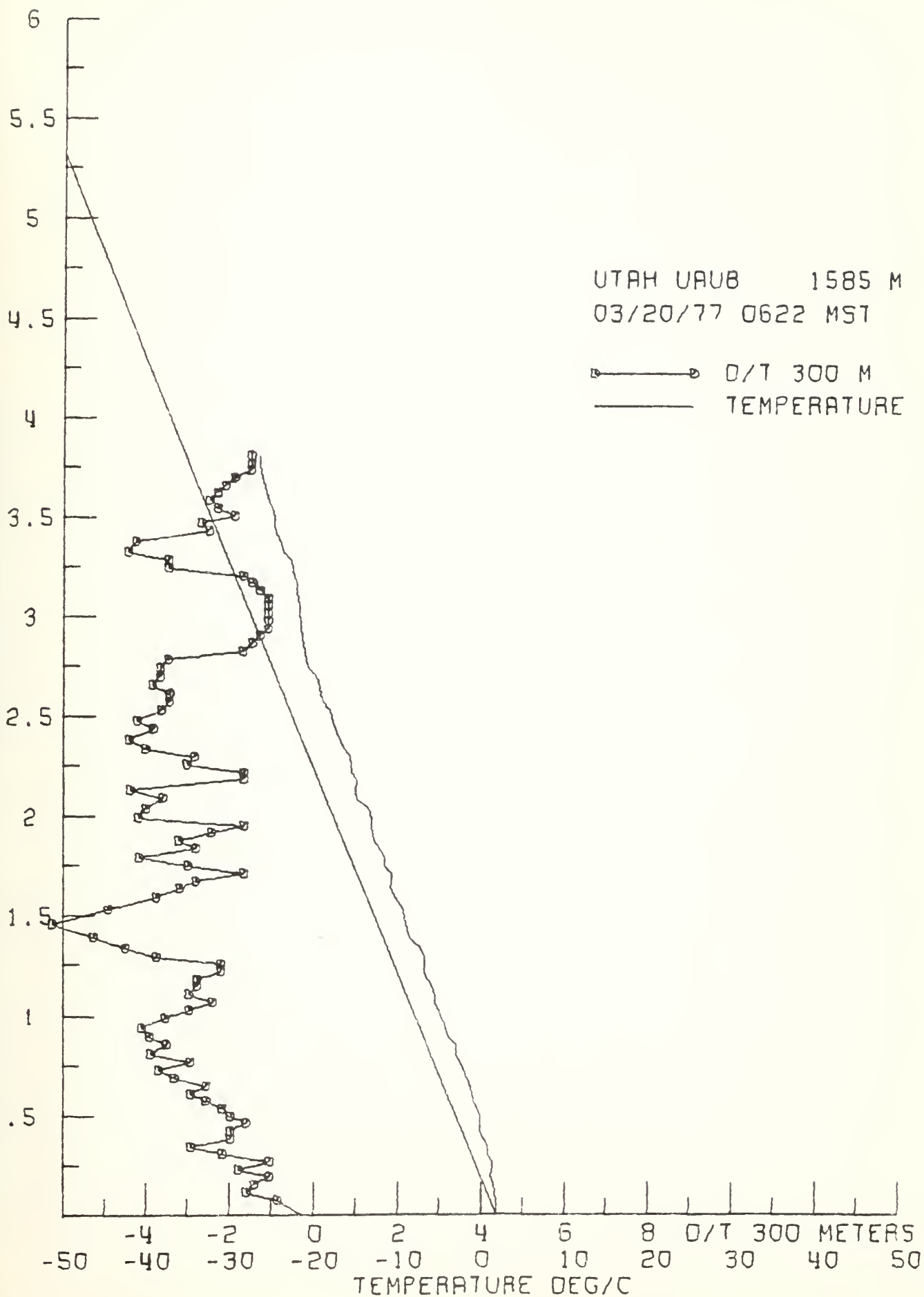


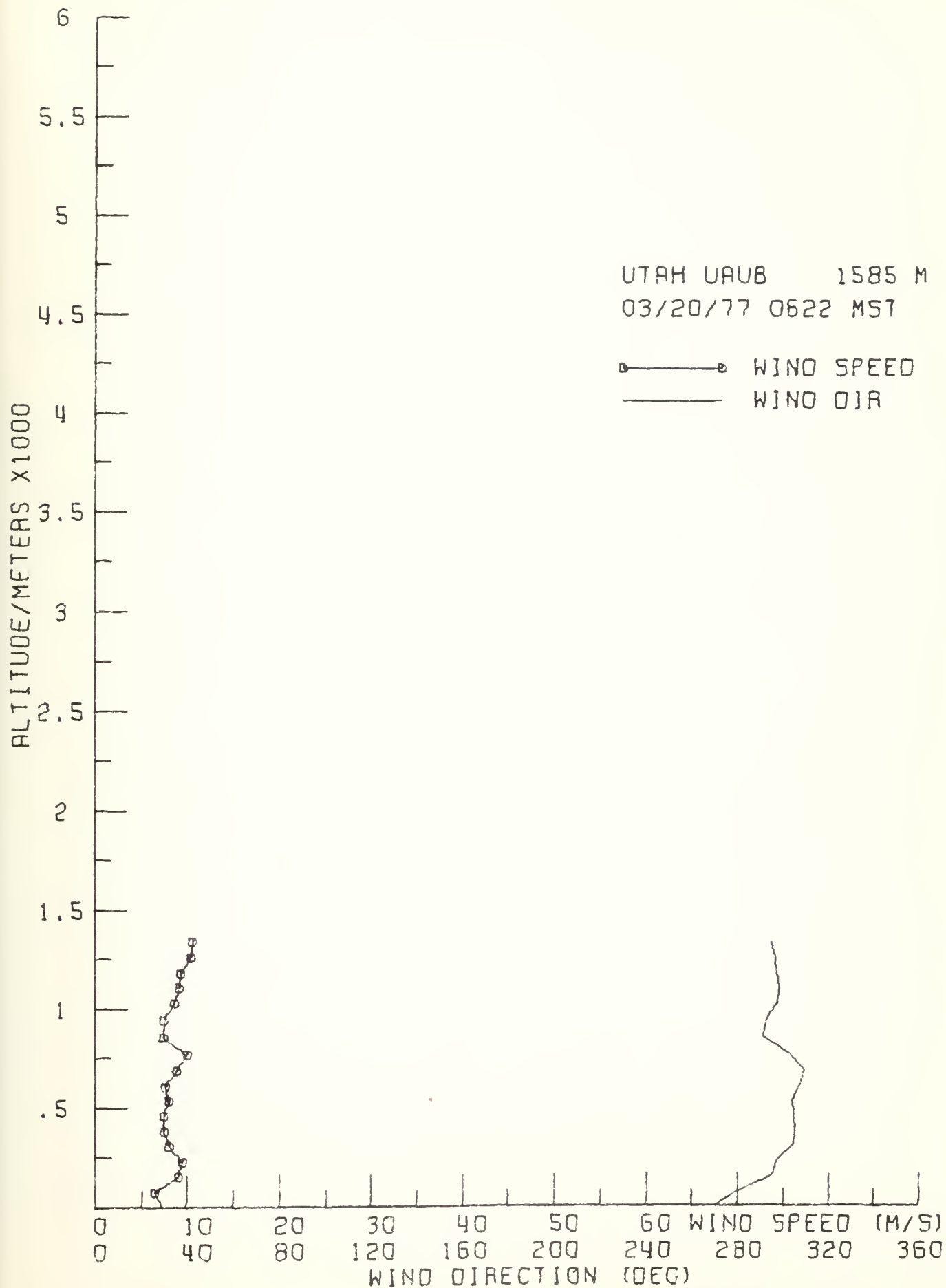
ALTITUDE/METERS X1000



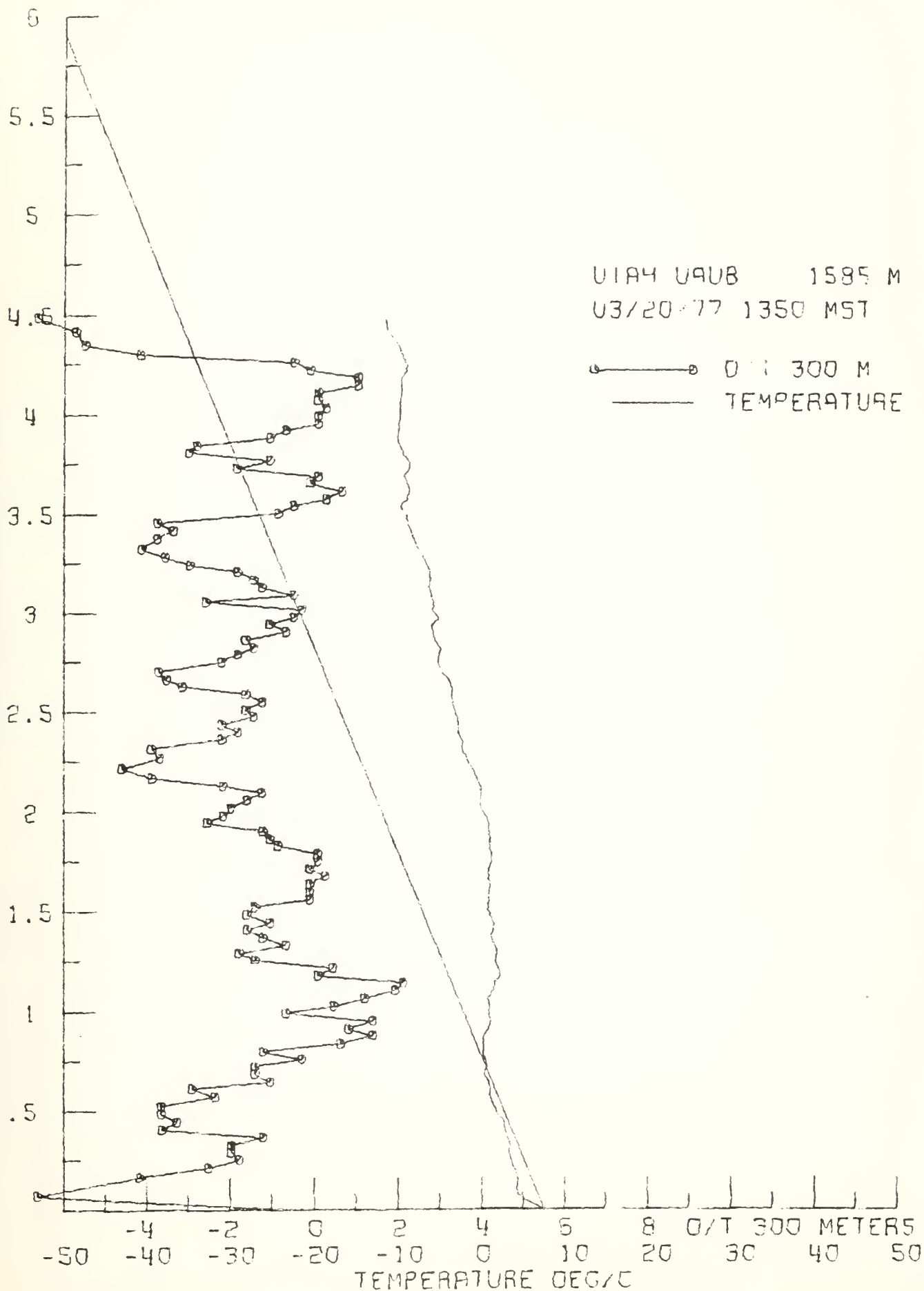


ALTITUDE/METERS X1000

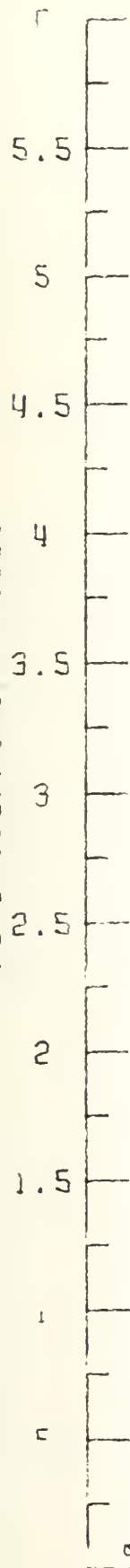




ALTITUDE/METERS X1000



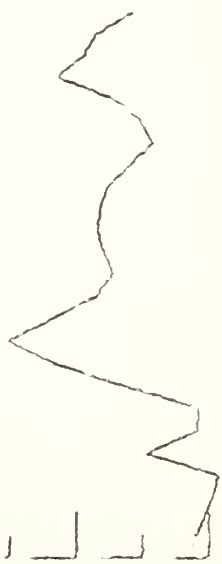
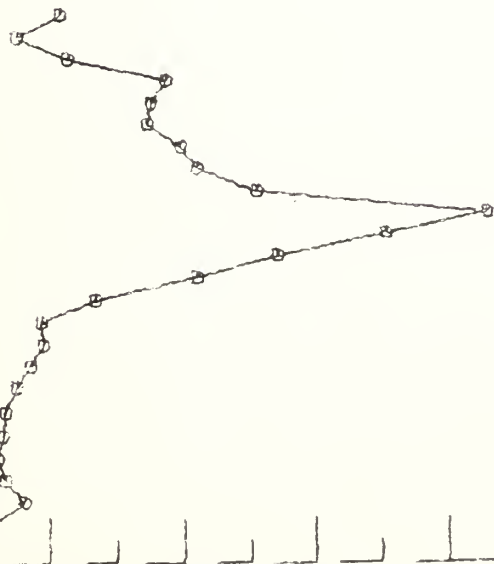
ALTITUDE/METERS 1000

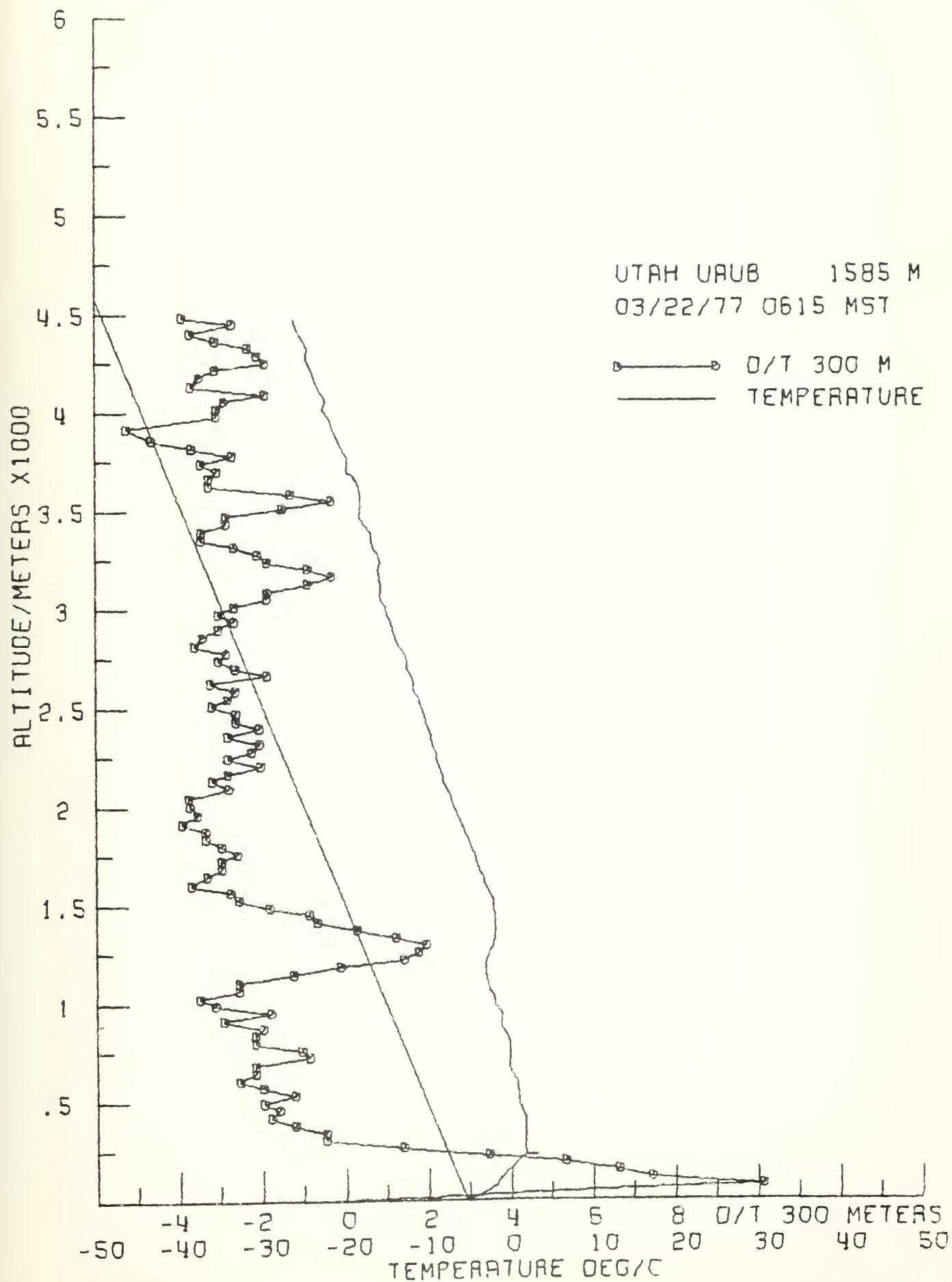


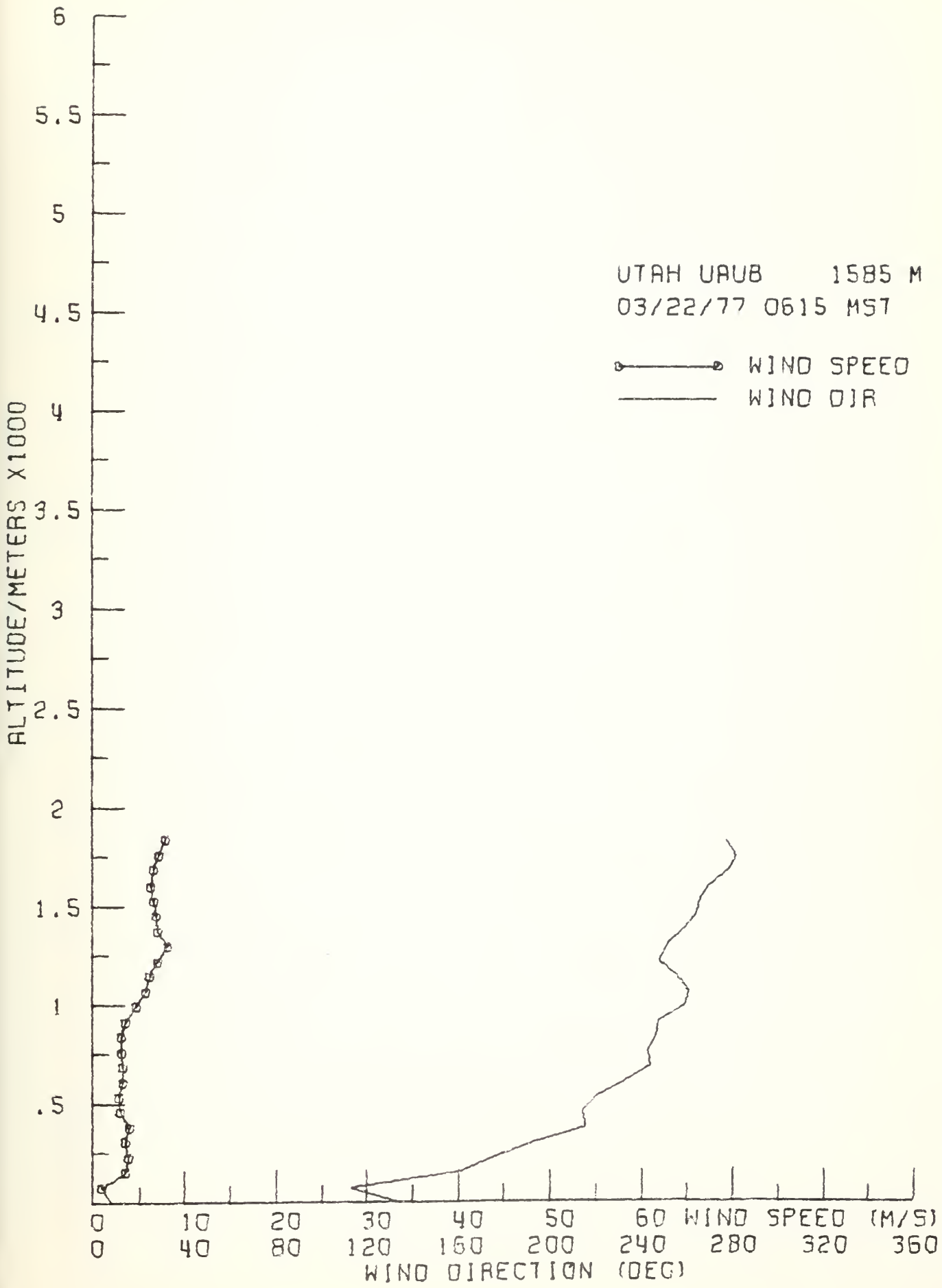
UTAH VAUB 1585 M
03/20/77 1350 MST

WIND SPEED
WIND DIR

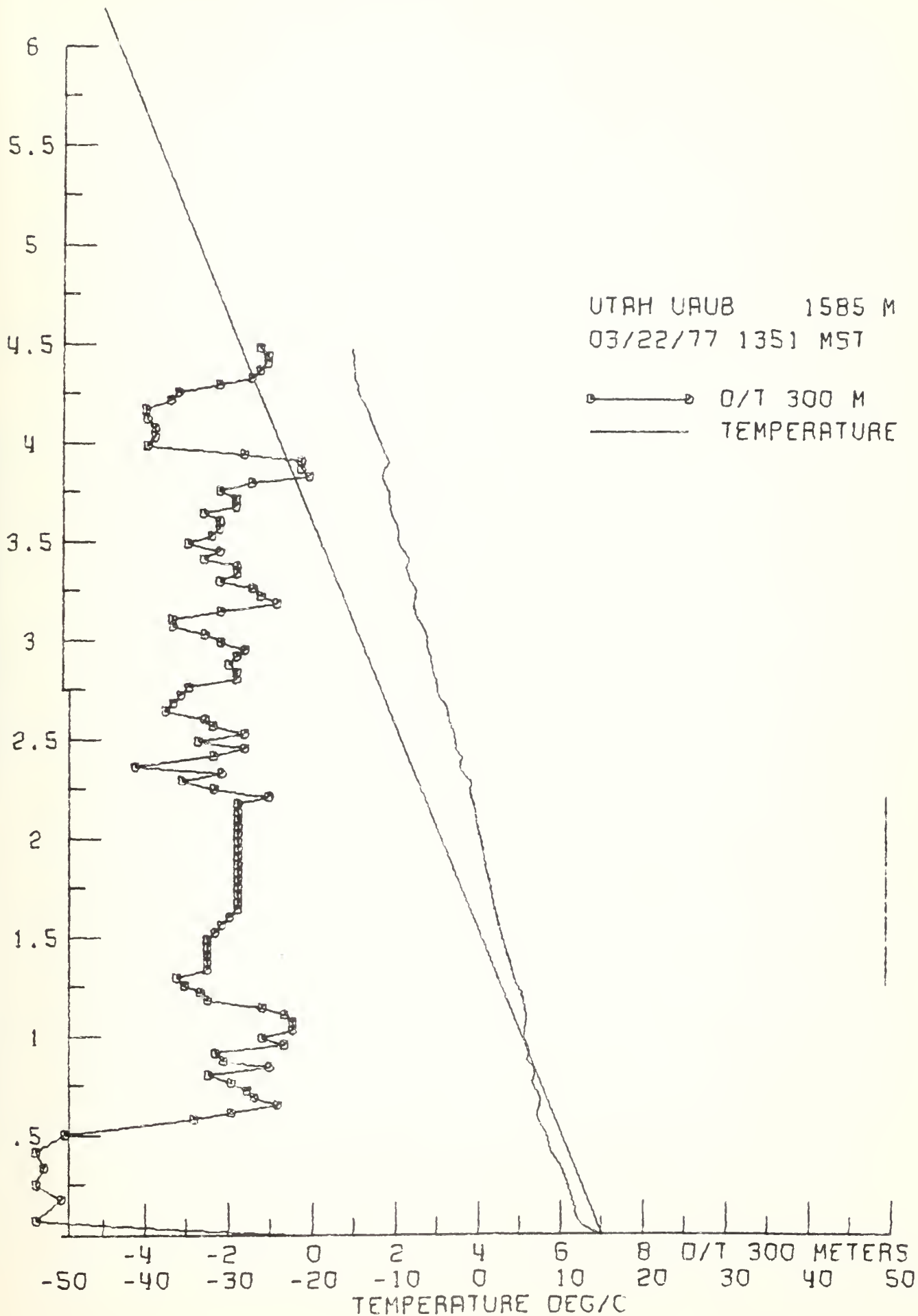
WIND SPEED (M/S)
WIND DIRECTION (DEG)



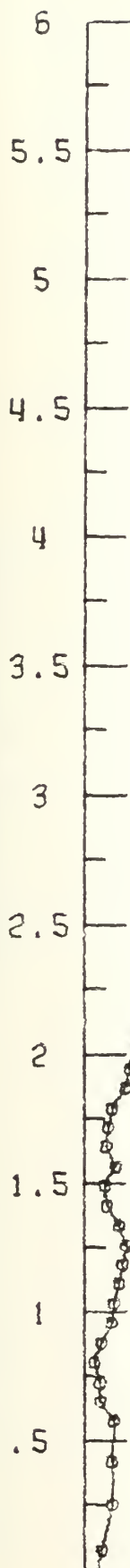




ALTITUDE/METERS X1000

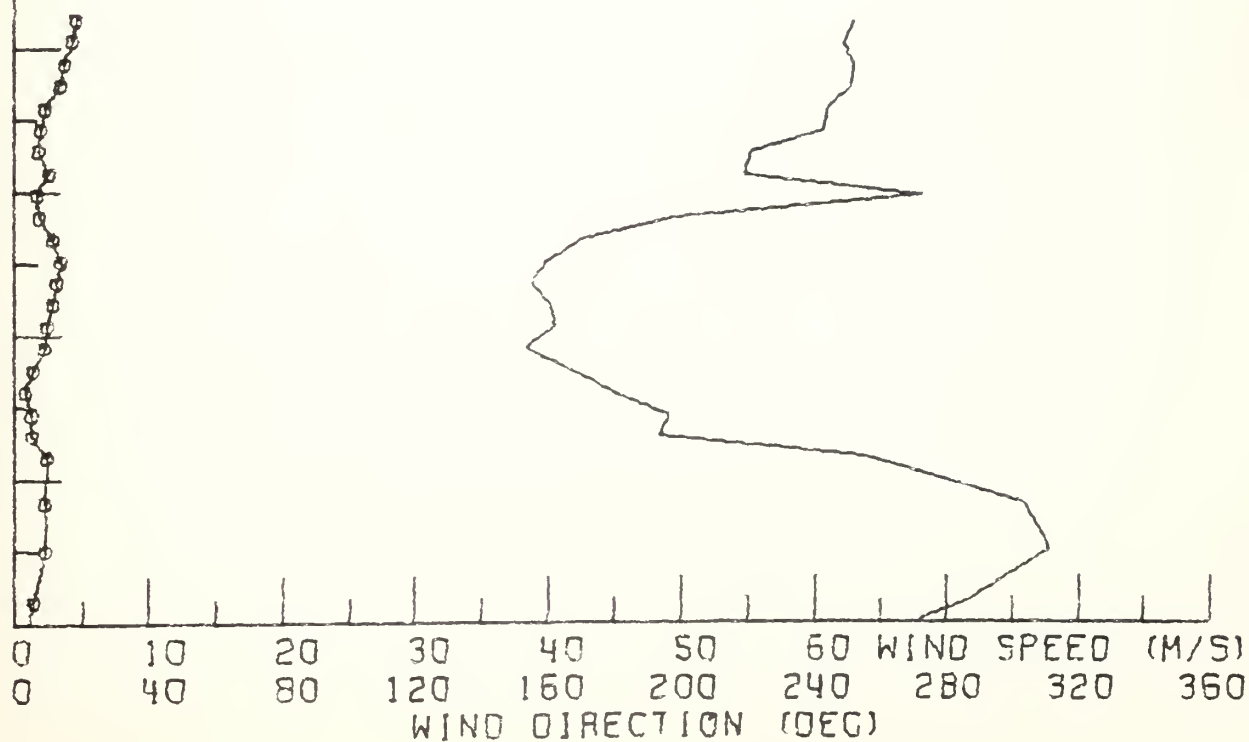


ALTITUDE/METERS X1000

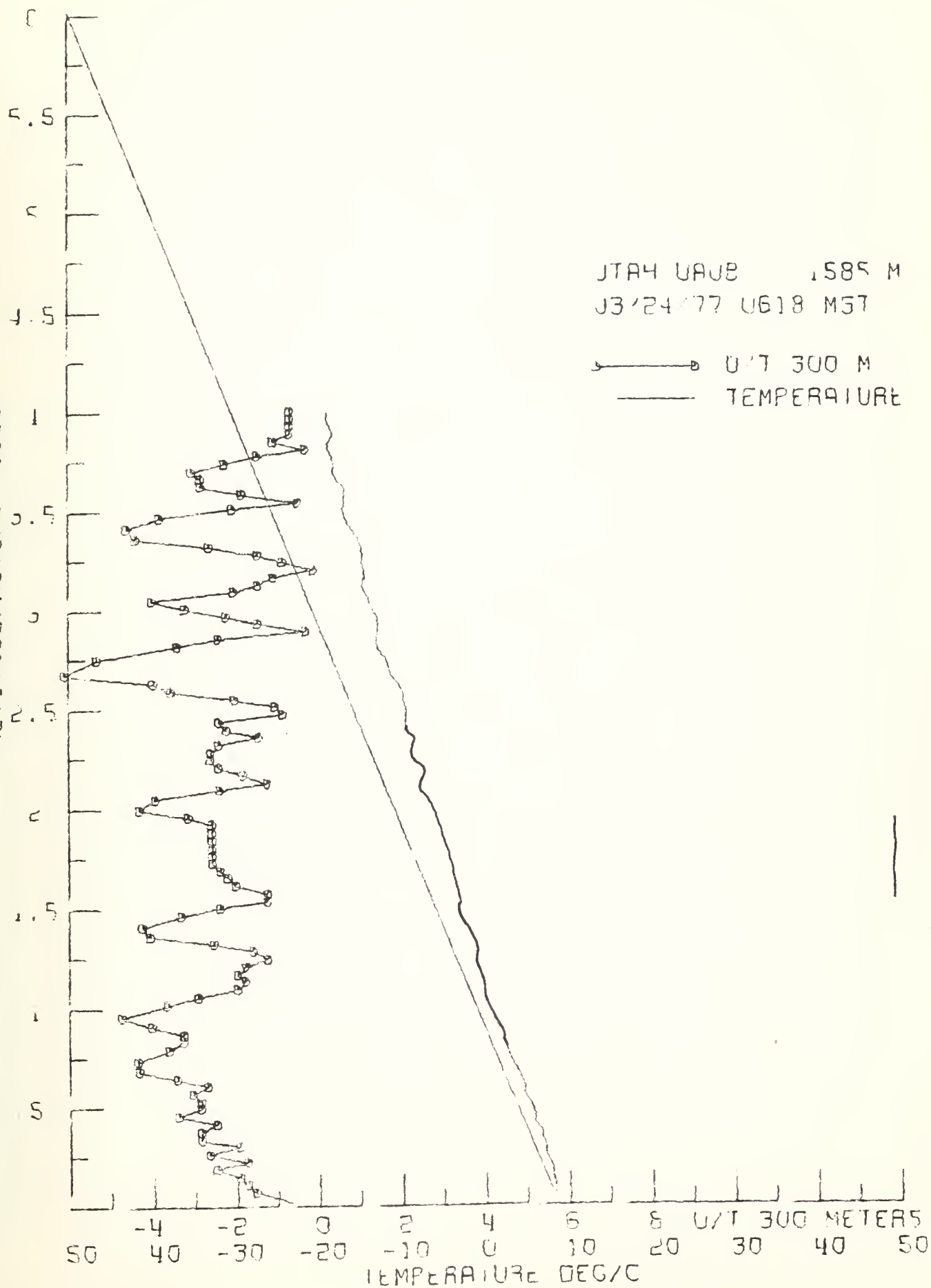


UTAH UAUB 1585 M
03/22/77 1351 MST

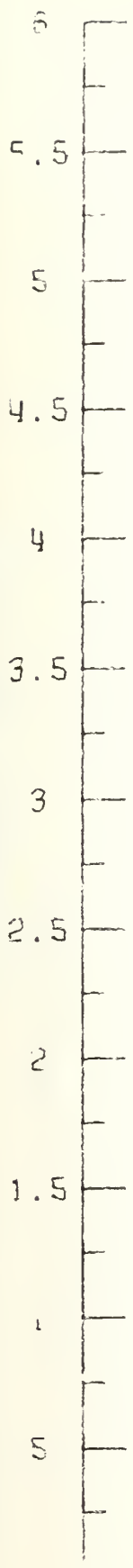
WIND SPEED
WIND DIR



ALTITUDE/METERS X1000



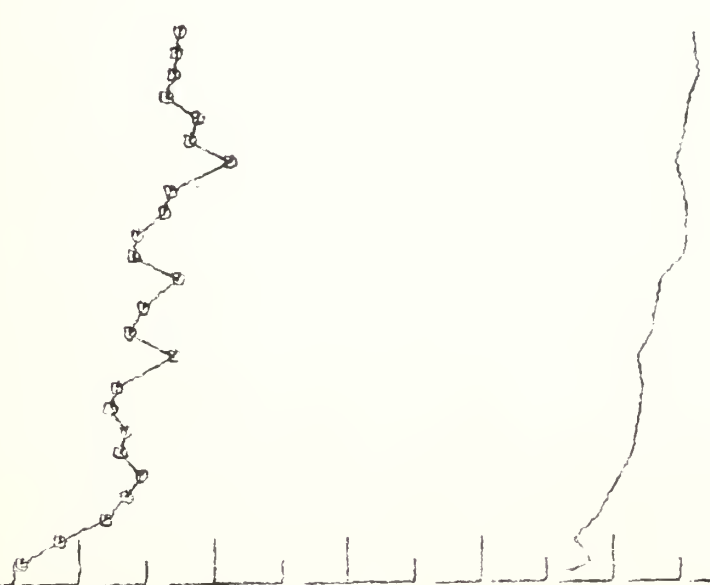
ALTITUDE/METERS X1000



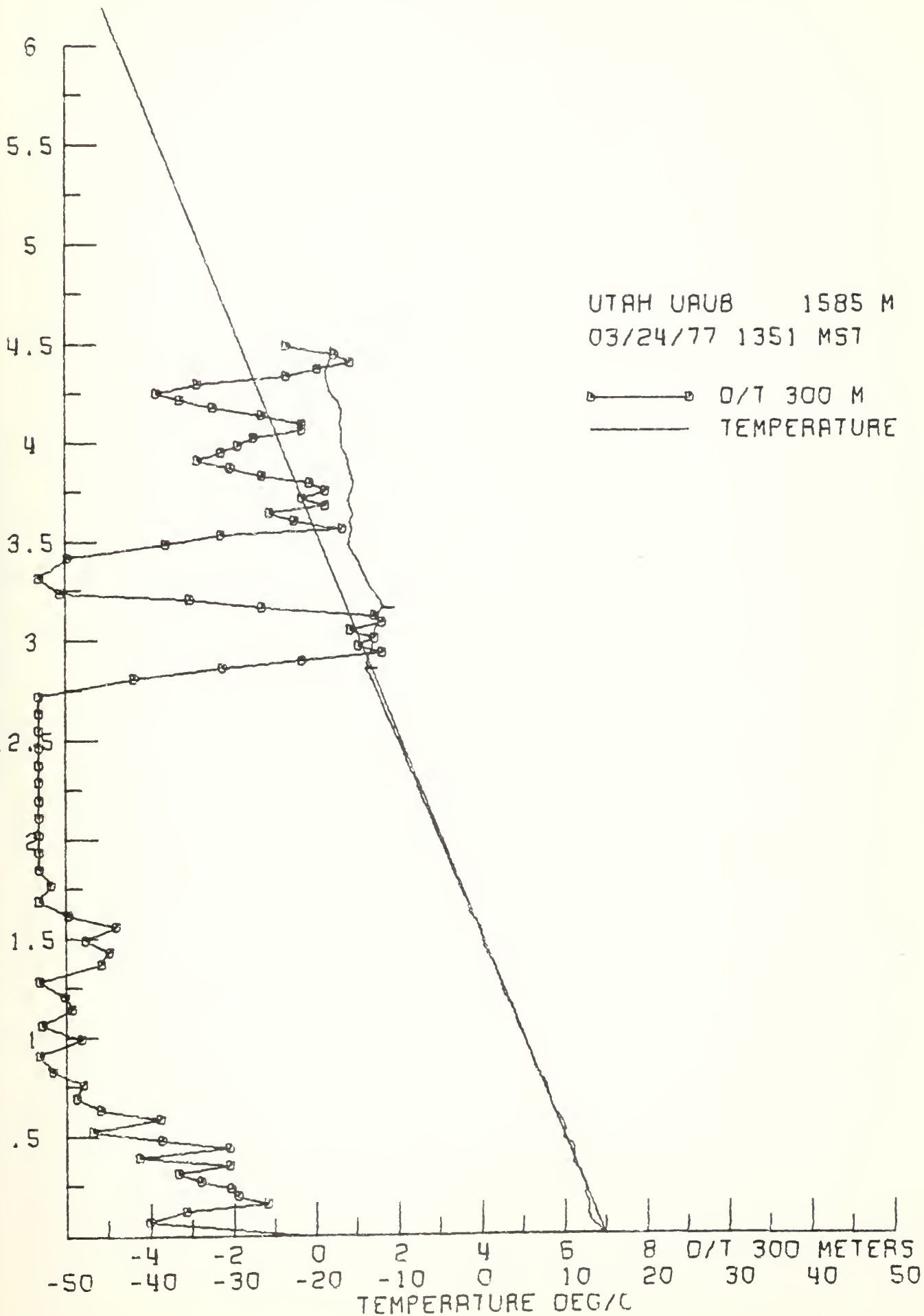
JTAM UAPB 1585 M
03/24/77 0618 MST

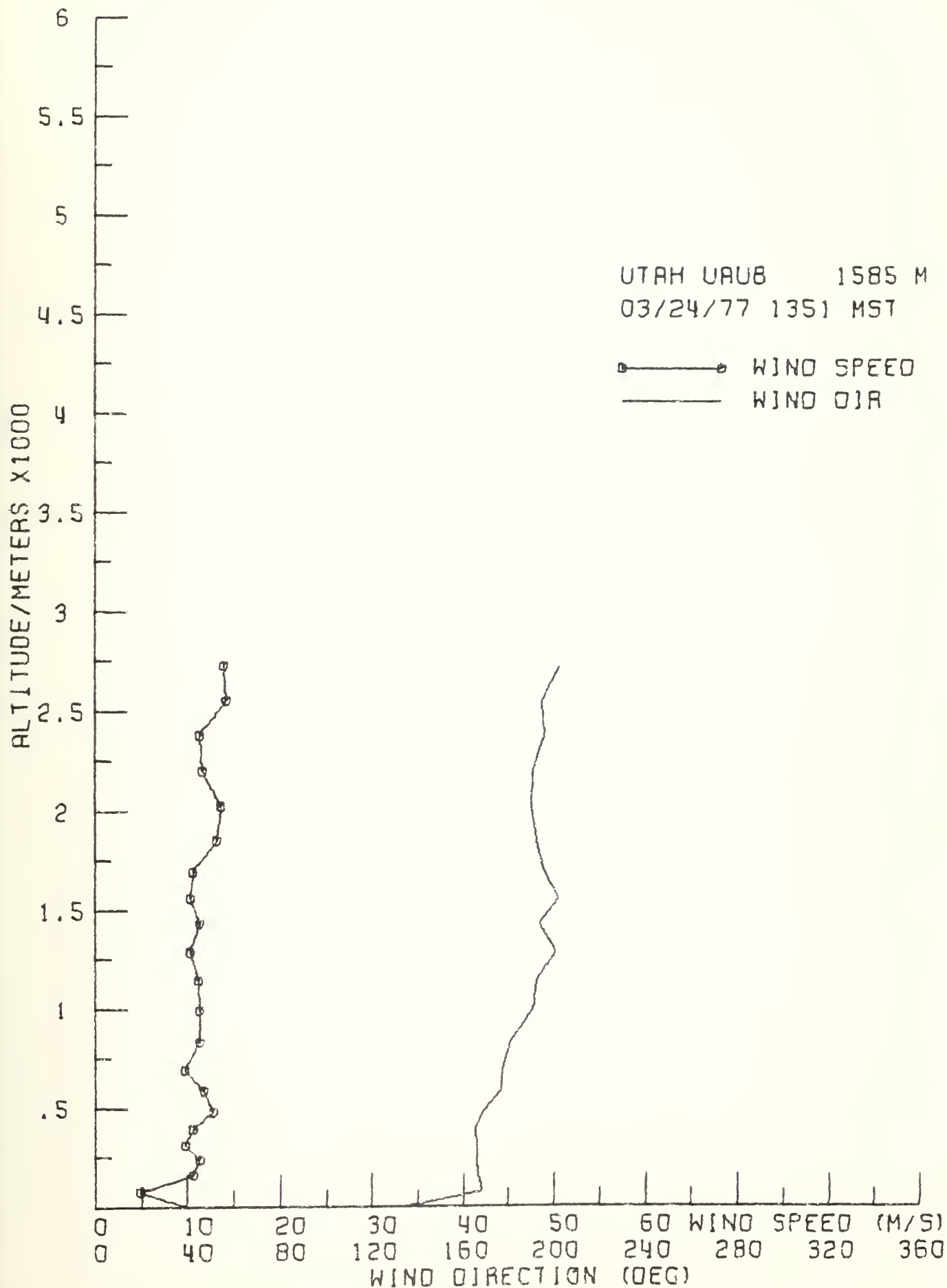
WIND SPEED
WIND DIR

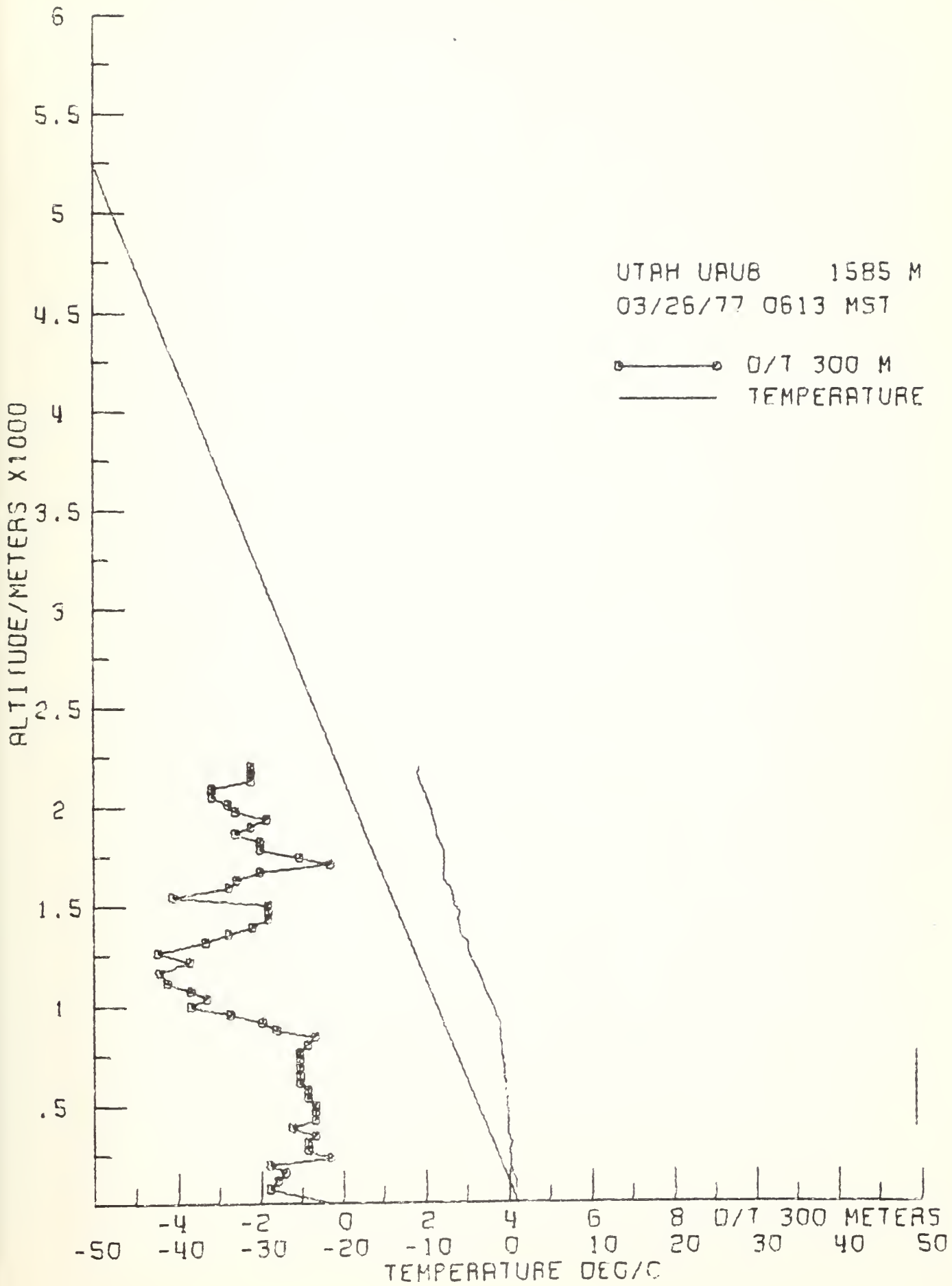
WIND SPEED (M/S)
WIND DIRECTION (DEG)

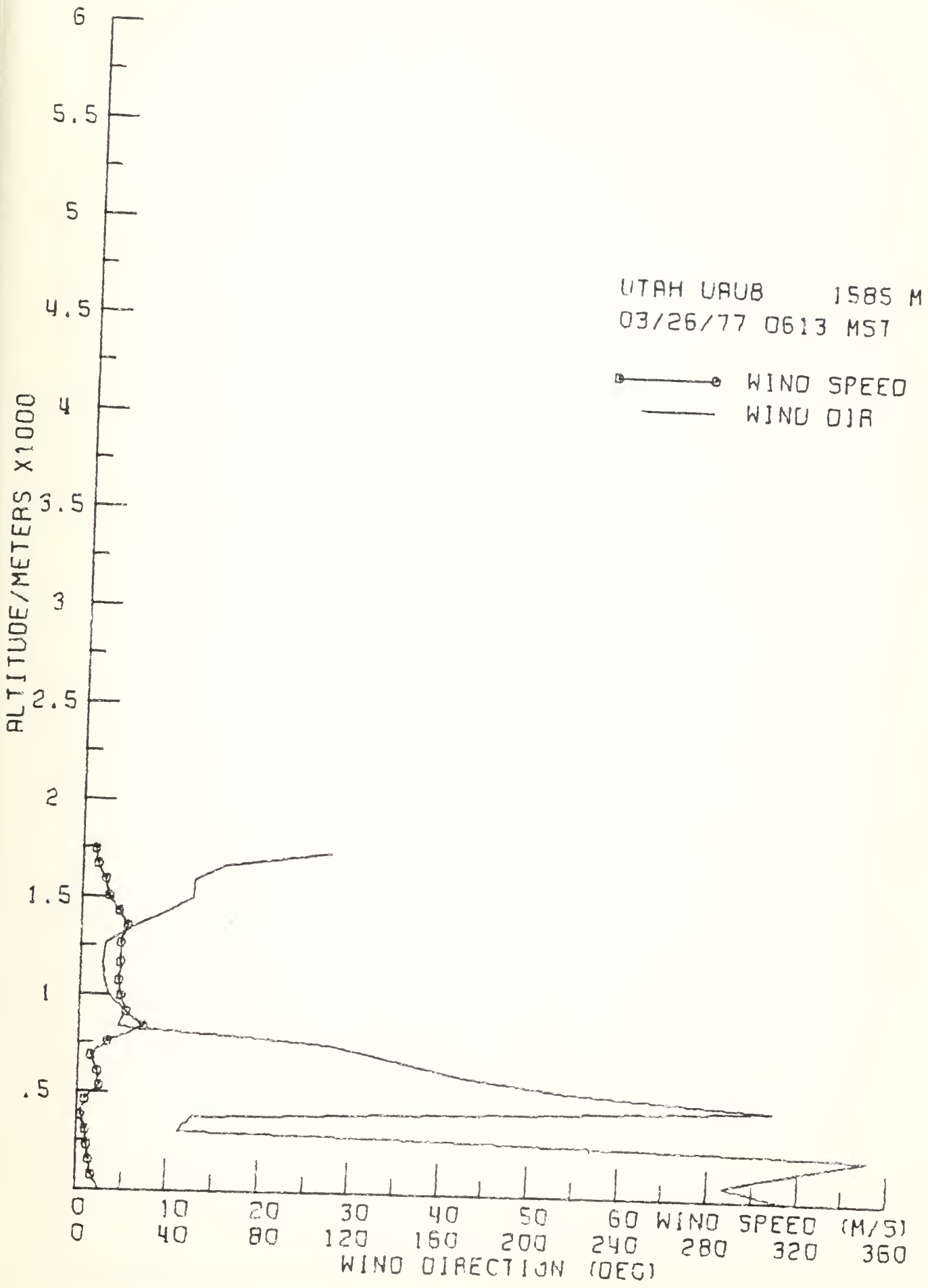


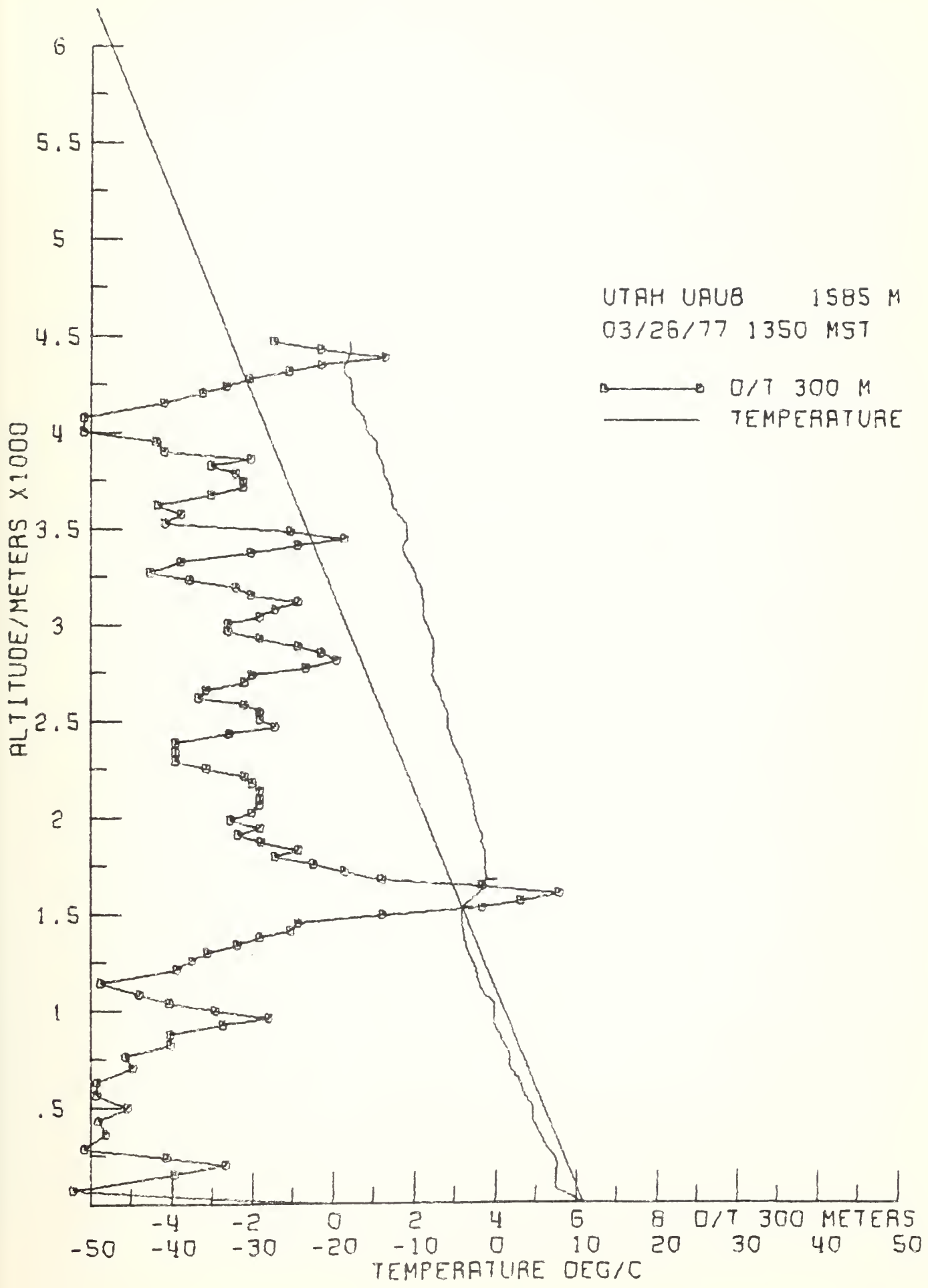
ALTITUDE/METERS X1000

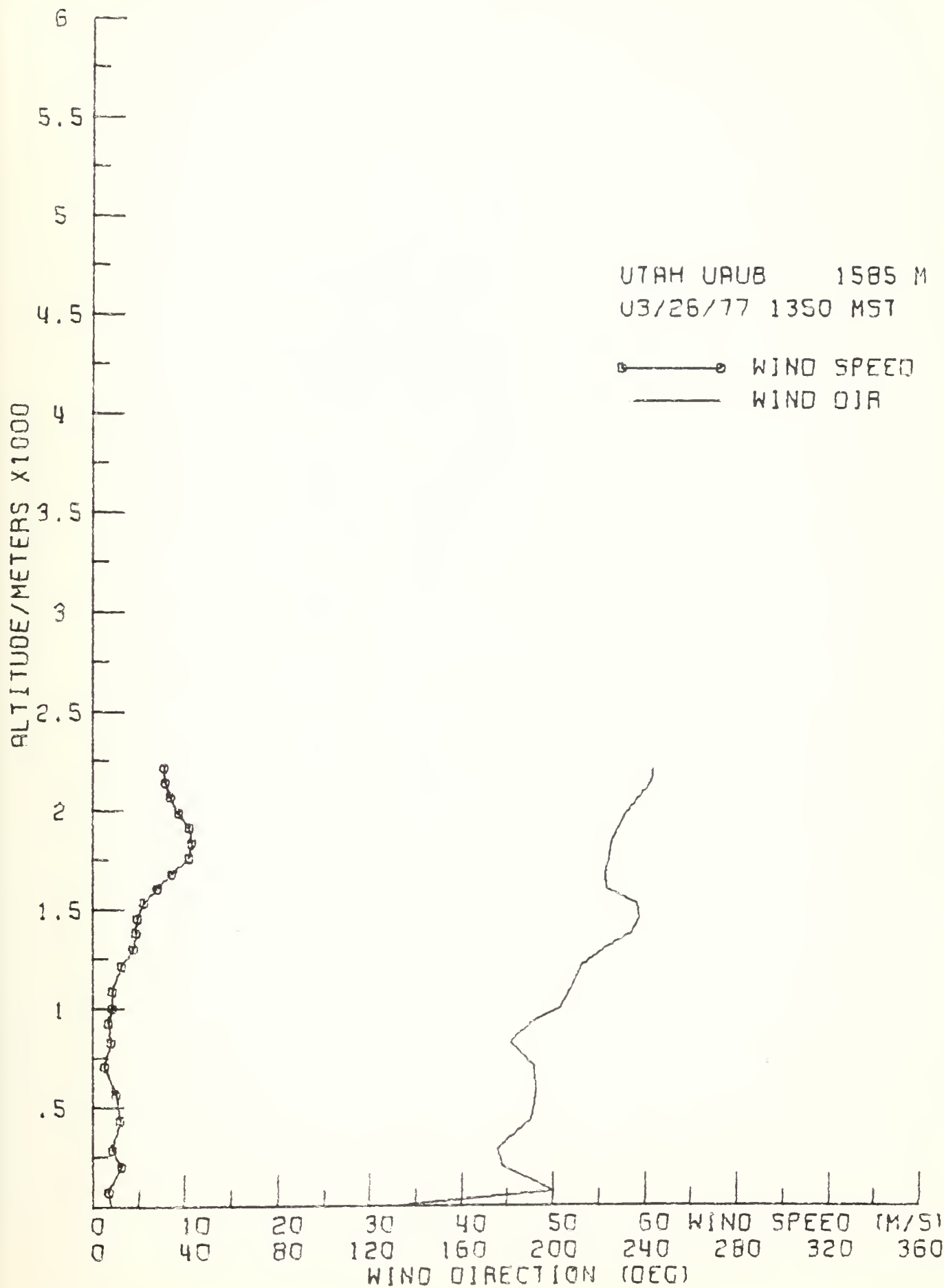


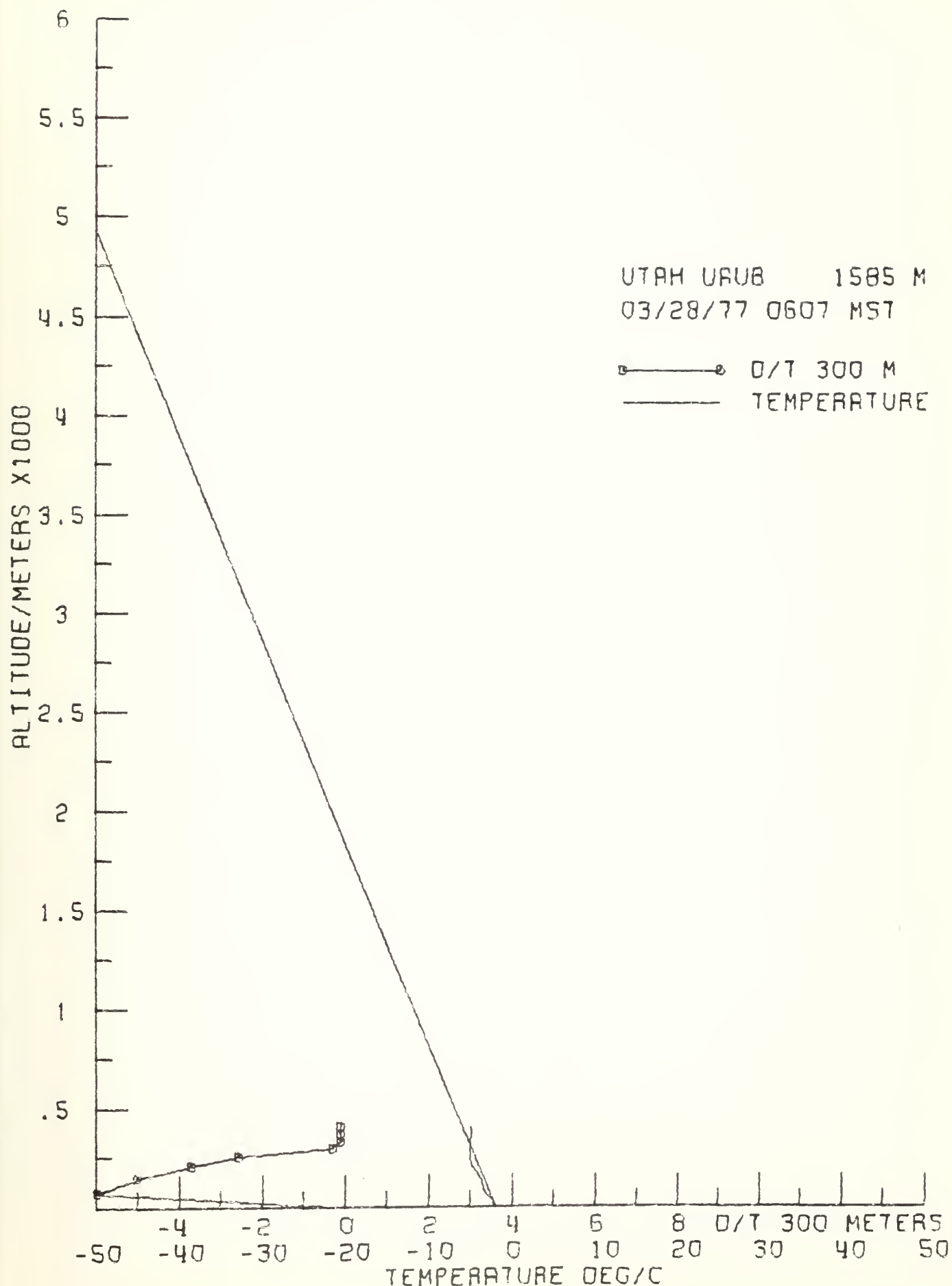


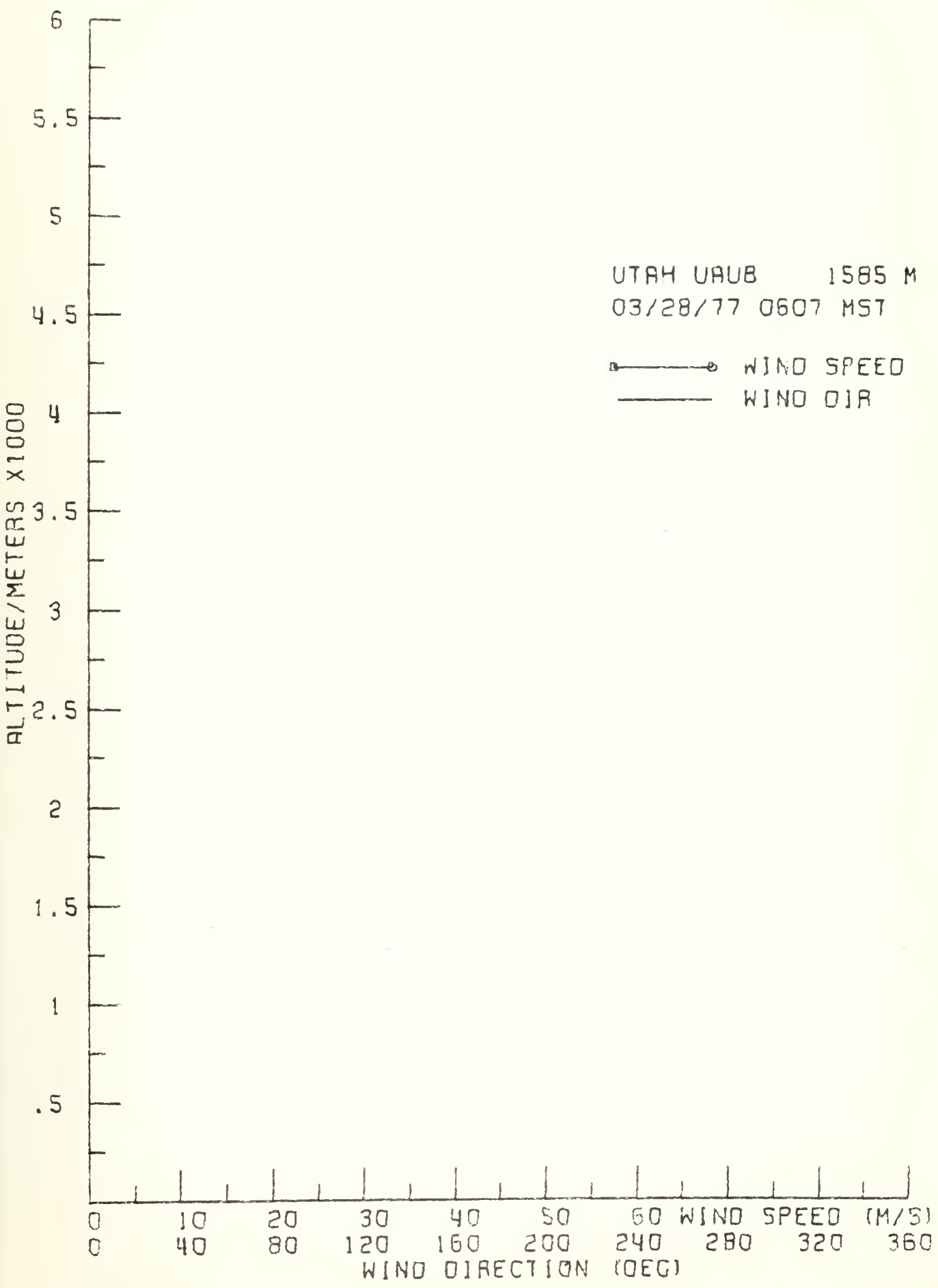




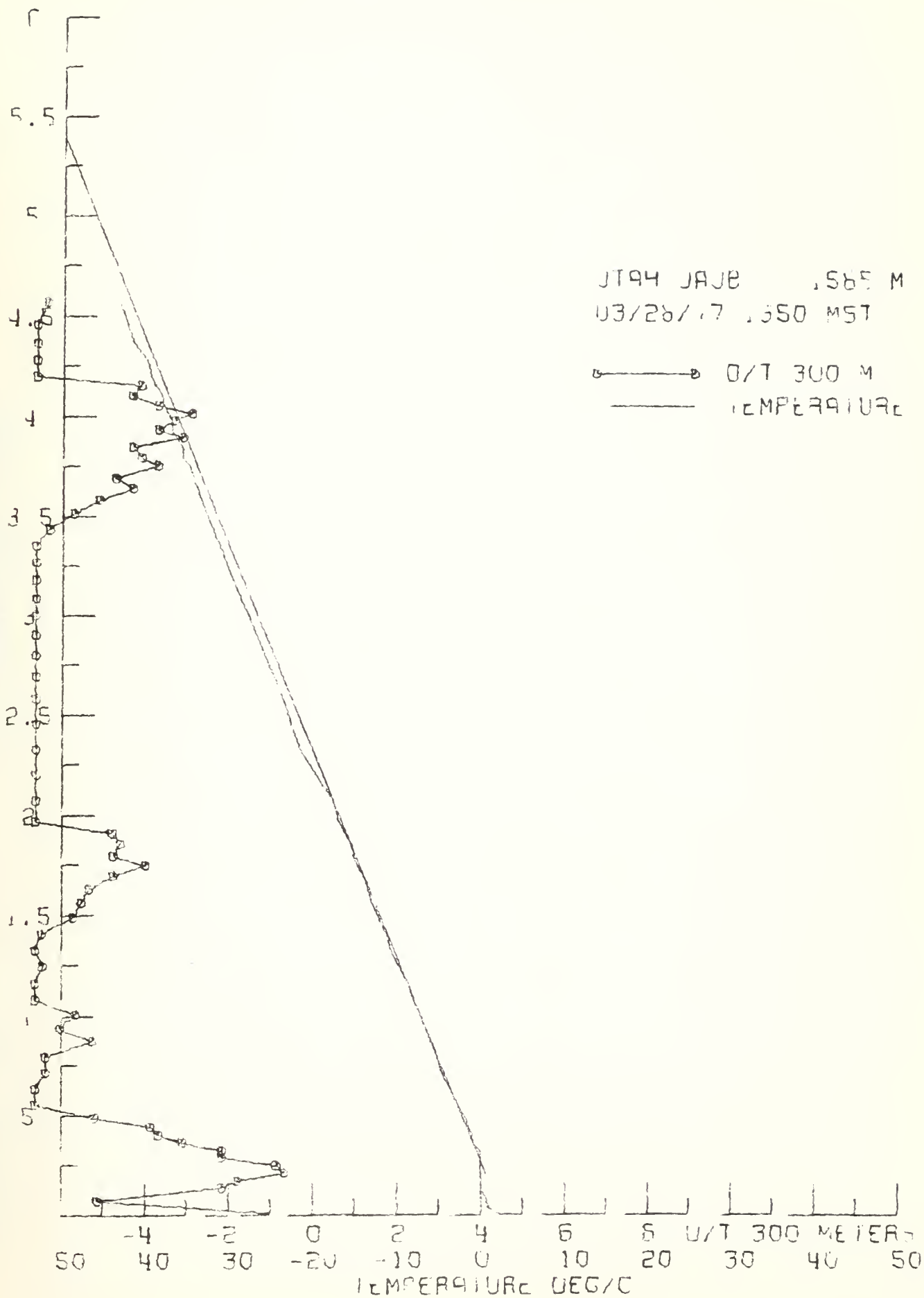


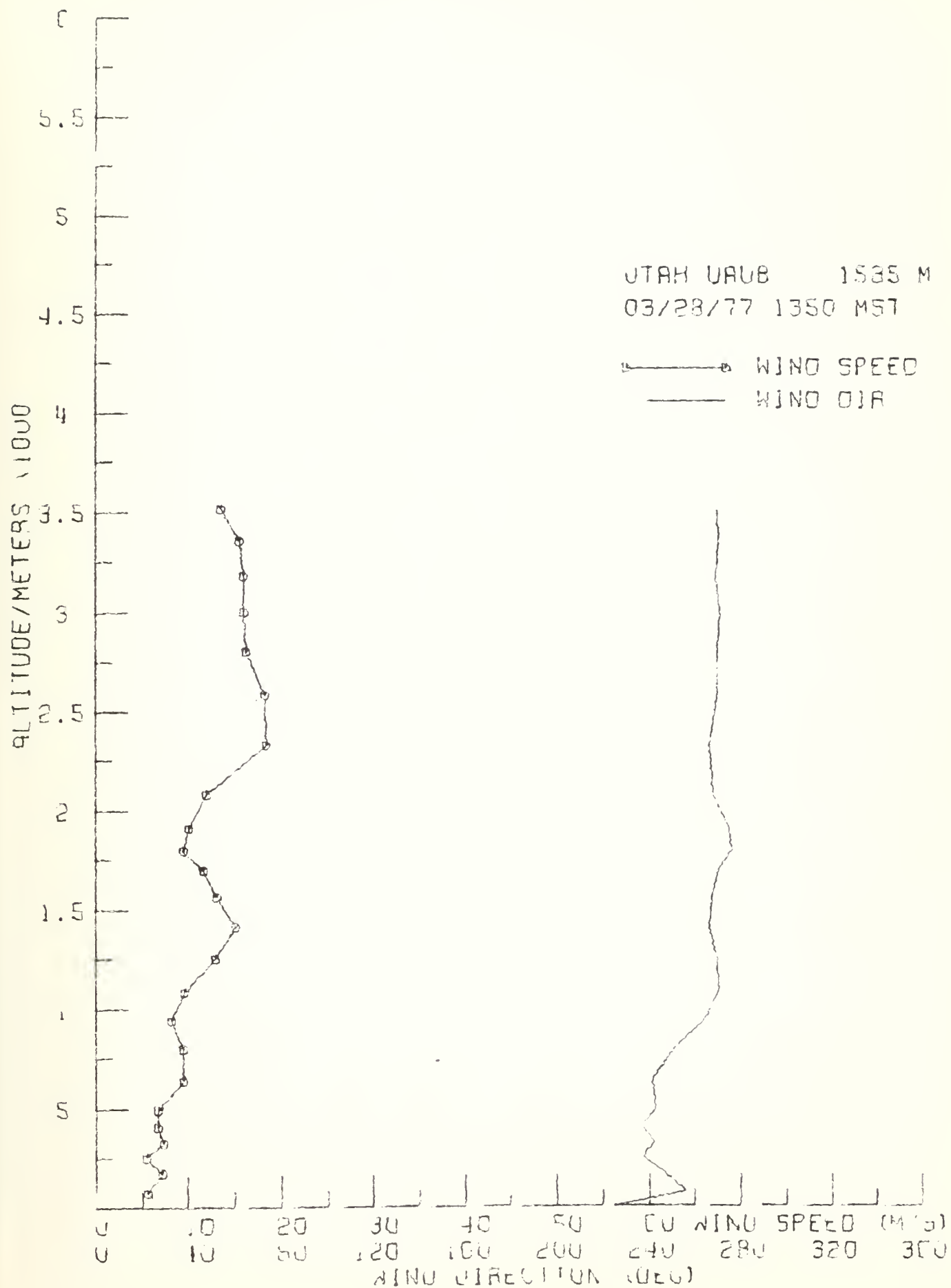


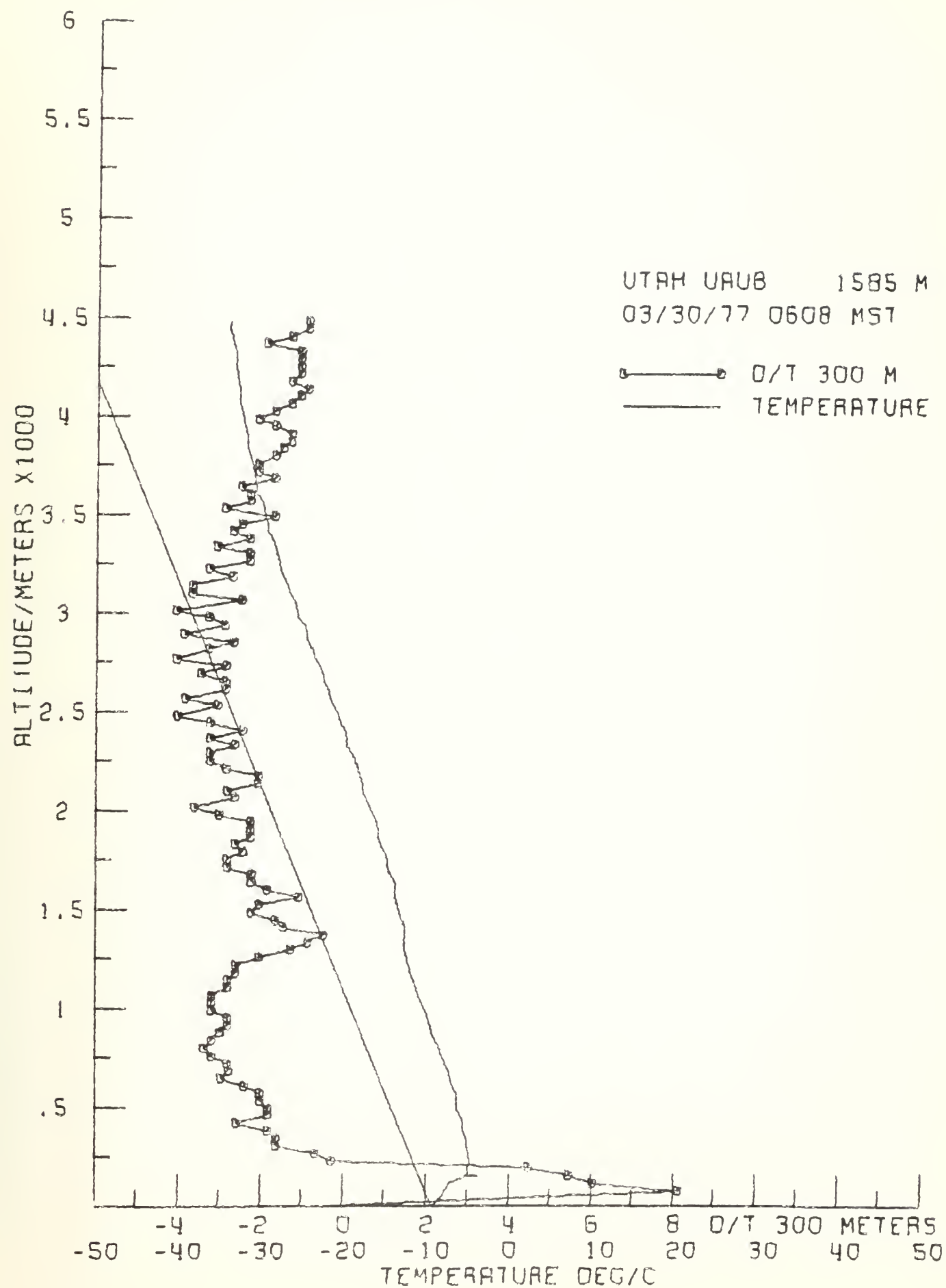


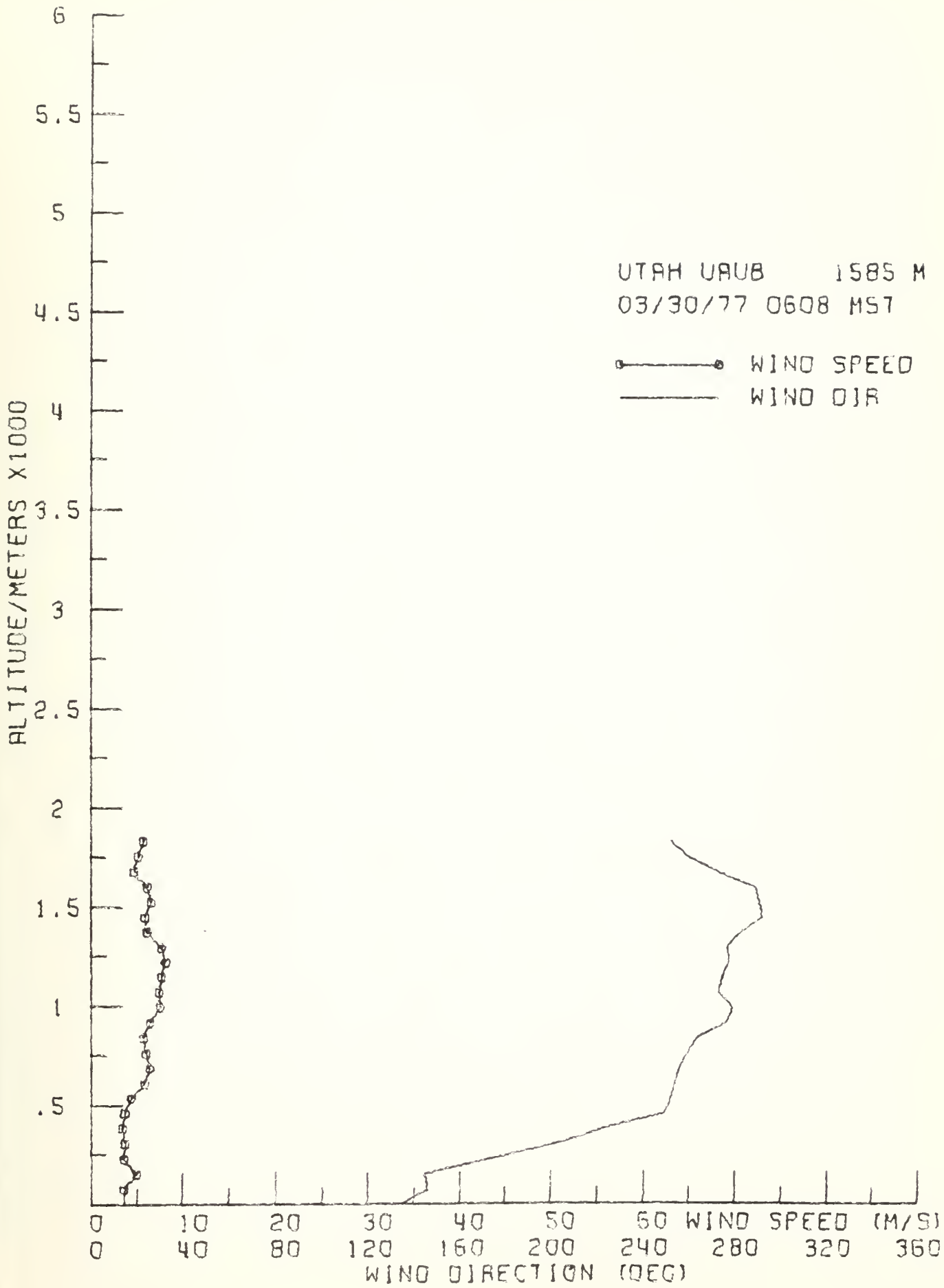


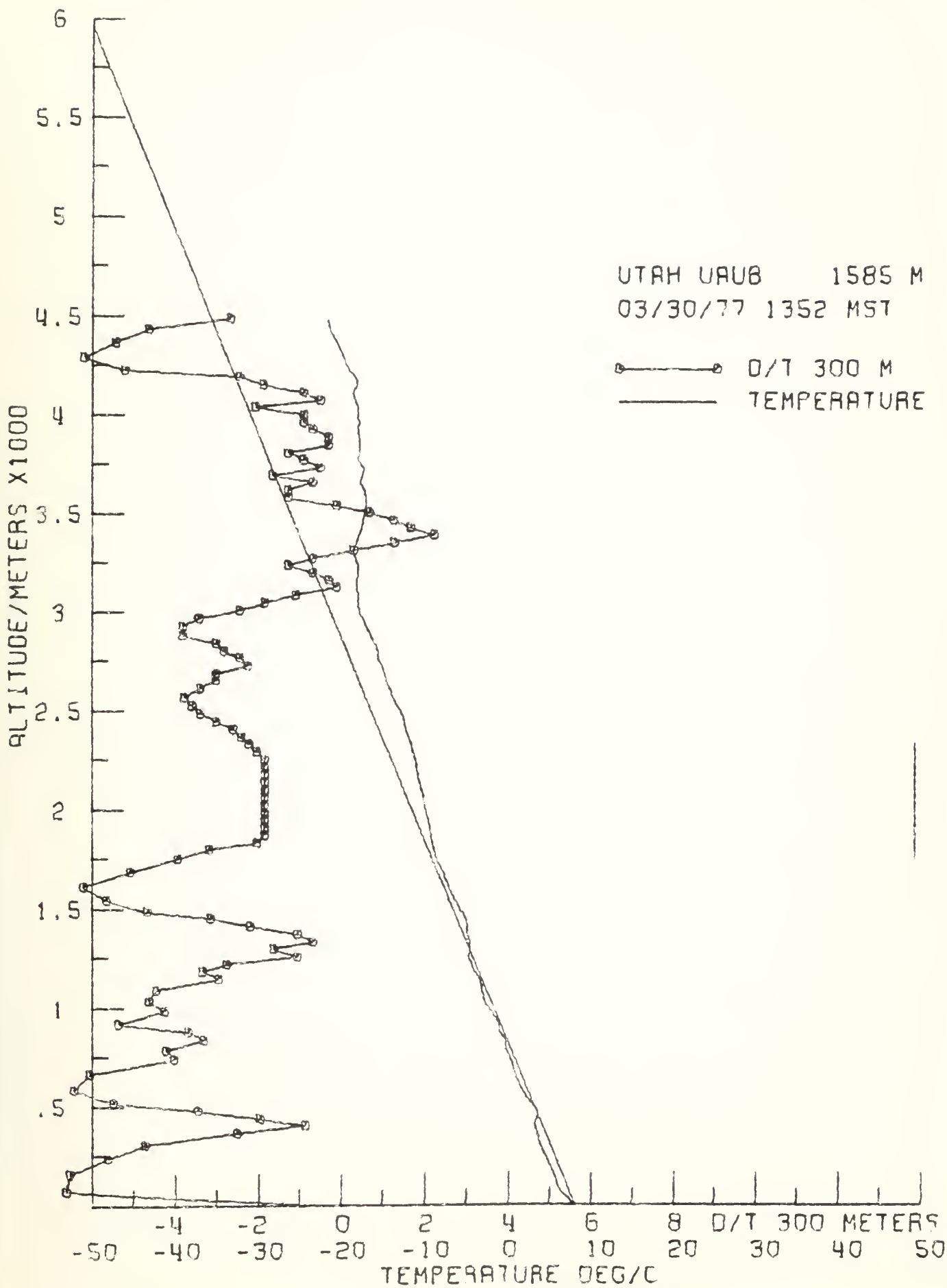
ALITUDE/METERS (1000)

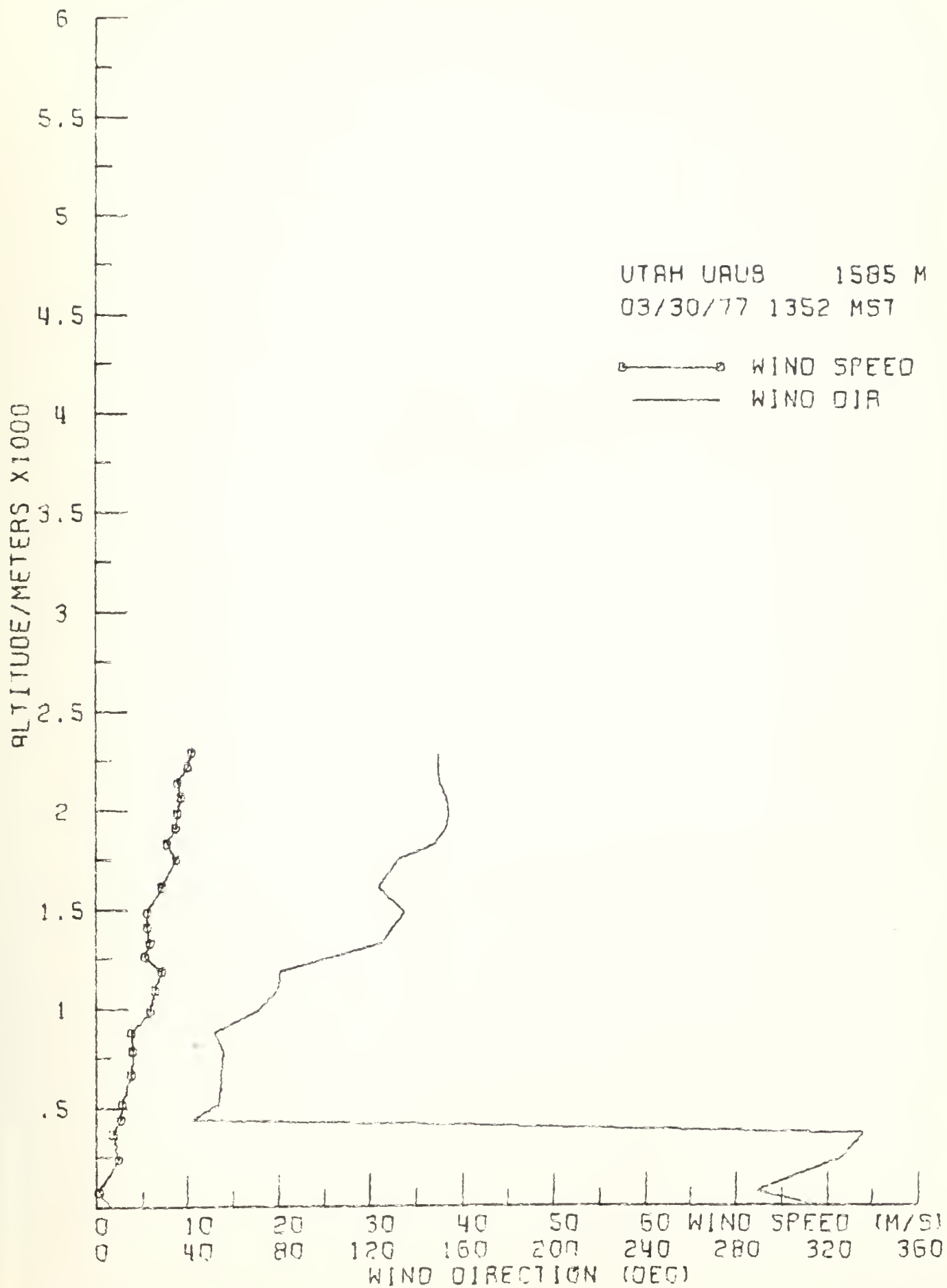












Form 1279-3
(June 1984)

BORROWER

DATE LOANED	BORROWER

USDI - BLM

